UNIVERSITY OF CALIFORNIA,
IRVINE

An Empirical Examination of the Evolving Advertising and Media Markets:

Using A Triadic Perspective to Assess the Relative Importance of

Services Diversity, Network Position, and the Client Portfolio

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Management

by

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2007

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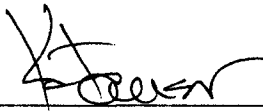
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DEDICATION

To my boys:

My husband and partner in life, Daniel,

My sweetheart, Jacob,

My puppy-eyes, Michael,

My angel, Dominic.

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I would like to also acknowledge Professor Judy Rosener whose friendship and laughter were invaluable in making my years more enjoyable, Professor Mary Gilly whose style and rigor set the benchmark for my own goals in academia, Professor Alladi Venkatesh who could always help me understand what I really wanted to say before I could figure out how to say it, Professor Imran Currim who provided teaching standards that will help me both as a scholar and as a teacher in the classroom, and Professor Connie Pechmann whose approach to research design prepared me to take on the task of this dissertation.

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Last, but not least, I acknowledge my loving, patient, kind, and supportive husband, Daniel Roy Chandler. People might read this dissertation and think that this accomplishment is mine alone. But it is not. Daniel helped to make this dissertation possible by taking days off or losing sleep so I could work, go to interviews, or meet my advisor. Daniel listened to me talk about things that made no sense in the real world and let me cry when I wanted to quit. And, in the end, we win the long, long race together. The completion and success of dissertation is as much yours as it is mine.

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ABSTRACT OF THE DISSERTATION

An Empirical Examination of the Evolving Advertising and Media Markets:

Using A Triadic Perspective to Assess the Relative Importance of

Services Diversity, Network Position, and the Client Portfolio

By

Jennifer Dailo Chandler

Doctor of Philosophy in Management

University of California, Irvine, 2007

Professor John L. Graham, Chair

This study is motivated by the diversity of media vehicles that have recently become available and determines the relative importance of offering advertising services related to these media vehicles. It focuses on relationships among three kinds of firms: advertising agencies, their clients, and media companies. Specifically, this examination investigates individual advertising agencies' position as the "middleman" in providing advertising services to their clients and enabling their clients to buy media from media companies. The study asks two main questions: Does services diversity affect an agency's client portfolio and, in turn, does the client portfolio affect performance? Is this effect moderated by network position? A triadic perspective is used to examine the relative importance of services diversity, network position

(centrality), and the client portfolio in driving agency performance. Based on archival

data from the advertising industry, results suggest that it is relatively more important

for advertising agencies to focus on managing the client portfolio and network

position rather than services diversity to drive performance. Results are obtained

using social networks analysis, partial least squares, ANOVA, and multiple regression.

Chapter 1. Introduction

In this dissertation, relationships among three kinds of firms are studied. These firms are advertising agencies, their clients, and media companies. The investigation is largely motivated by effects of the 1996 Federal Telecommunications Act which had a direct impact on media companies and, as a result, had indirect effects on the advertising industry. This legislation deregulated the media and telecommunications industries; it was expected that increases in profit motivation would yield infrastructure investments for innovative technologies and services (Hundt 1996). The result has been a 10-year period (1996-2006) of extreme growth and broad capitalization of media vehicles based on new capabilities in telecommunications, bandwidth, and internet systems (Miller 1995, Shugan 2003b). Generally speaking, the market for media has become crowded and this is creating changes in the structure of the industry (White 2002). The advertising industry has been struggling to adapt (Dukes and Gal-Or 2003; Liu, Putler, and Weinberg 2004; Rust and Oliver 1994; Shugan 2004; Shugan 2003a).

Advertising Age, the advertising industry's leading trade journal, increased the number of media vehicles reported from 13 to 20 (a 65% increase) in the 4 year period (2001 – 2005). Meanwhile, U.S. annual expenditures on internet advertising demonstrated the largest increase among media vehicles in 2004, increasing 21.3% over the previous year (Advertising Age 2006). As seen in Table 1.1, an overwhelming majority of firms across five industries intend to pilot or direct at least

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2 types of interactive media vehicles in the next 12 months (Advertising Age 2006).

This is not to say, however, that interactive media vehicles are the only media with

positive increases in annual expenditures. As seen in Table 1.2, media vehicles such

as television, radio, and newspaper continue to see increases in annual expenditures as

well.

Consequently, firms have been faced with managing industry- and firm-level

changes due to the growing importance of emerging media vehicles. Although

expenditures related to these media vehicles are rapidly growing, technology is not a

prominent feature in the data used for this study. Instead the broader issue of services

diversity is considered in the context of services related to advertising (Rust and

Oliver 1994, Stewart and Pavlou 2002). As a paid form of nonpersonal promotion of

ideas, goods, or services by an identified sponsor, advertising has traditionally been

viewed as a tool that firms use to communicate product or service messages to

consumers (Kotler and Keller 2006, Boyd, Claycamp, and Mcclelland 1970; Lodish,

Abraham, Kalmenson et al. 1995, Rust and Leone 1984, King, Reid, and Morrison

1997, Naik and Raman 2003).

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Table 1.1. Marketers using Interactive					
Percent Responding by Marketer Category					
Channel	Consumer Products	Media & Communications	Retail	Financial Services	Equipment & Technology
Rich media e-mails	86%	76%	71%	51%	59%
Contextual targeting	71	87	71	60	54
Rich media display ads	71	81	60	63	51
Blogs/social networks	69	70	54	28	51
Behavioral targeting	63	85	83	72	56
RSS	63	65	37	37	38
Mobile marketing	46	70	34	31	28
Advergames/ in-game ads	43	41	31	22	8

Source: Interactive Fact Pack 2006, Advertising Age 2006 –

More than 230 marketers were asked if they intended to pilot or direct each of these channels in the next 12 months

Table 1.2. Changes in Advertising Expenditures	
Media Vehicles	**% Change**
Magazine	12.9
Sunday magazine	9.7
Business publication	-0.7
Local magazine	8.2
National newspaper	12.4
Local newspaper	17.5
FSIs	NA
Network TV	4.7
Spot TV	-4.7
Syndicated TV	15.9
Spanish-language network TV	18.9
Cable TV network	17.6
Network radio	11
National spot radio	17.2
Outdoor	4.6
Yellow Pages	1.4
Internet	20.4
Total US	9

Source: Advertising Age, US Advertising Expenditures by Media Vehicles 2004, Based on 100 Leading National Advertisers

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This dissertation takes the advertising agency's perspective as "middleman" between media companies and the agency's clients because agency managers must consider both the agency's media *supplier* relationships on the one hand, and the agency's *client* relationships on the other hand. To manage the placement of advertising in appropriate media vehicles, advertising agencies have long relied on Nielsen and Arbitron ratings that report variations of Reach and Frequency measures. Reach measures, for example, have traditionally assessed the percentage of a target market that views an advertising message on a particular television or radio program. Frequency measures report the number of times a target market views an advertising message. However, Nielsen and Arbitron ratings have only begun to assess other media vehicles, such as internet or local magazines. This discrepancy highlights the need to identify and evaluate media vehicles as unique and separate from advertising messages because media vehicles are discernible channels that deliver advertising messages to target markets.

The investigation here is intended to assist advertising agencies with this issue because clients rely on advertising agencies to create and deliver advertising messages, products or services through media vehicles on their behalf (Zhao 2005). As a result, an agency's media buying pattern is largely dependent on its set of agency-client relationships. Because the agency-media exchange is influenced by the agency-client relationship, the effects are different from the traditional dyadic effects that have been examined in marketing. Examples of these dyadic effects are explored,

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for example, in the buyer-seller relationship literature where effects based on trust, commitment or power are offered to explain how relationships in dyads (i.e., between two parties) might change (Dwyer and Oh 1987; Dwyer, Schurr, and Oh 1987; Morgan and Hunt 1994; Wuyts and Geyskens 2005).

Beyond the dyad, researchers have shown that industrial buyers are influenced by the buyer-vendor-supplier triad (Wuyts, Stremersch, Van Den Bulte et al. 2004). Specifically, Wuyts and colleagues identify a triad as a set of three firms (Wasserman and Faust 1994). In this dissertation, triadic effects are examined using a more specific type of triad: the agency-client-media triad. By examining triads, this dissertation aims to shed light on issues that arise when transactions and dyads are considered in the broader context of markets and marketing environments (Achrol, Reve, and Stern 1983, Wathne and Heide 2004). By investigating individual advertising agencies' position as the "middleman", this study considers changes on both the client and media levels to better investigate triadic effects on agency performance. The study asks two main questions: Does services diversity affect an agency's client portfolio and, in turn, does the client portfolio affect performance? Is this effect moderated by network position?

The remainder of this dissertation is organized as follows. Chapter 2 builds the theoretical model by providing a literature review, describing the industry background, and developing the hypotheses. Chapter 3 describes the research design, while

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Chapter 4 details the results of the empirical study. Next, Chapter 5 discusses the findings and Chapter 6 outlines limitations and future research directions. Finally, Chapter 7 describes managerial implications and Chapter 8 draws conclusions. References are included in the Appendix.

Chapter 2. Building the Theoretical Model

This chapter is divided into three sections. The first section provides an overview of relevant literature and the second section provides background on the advertising industry. Finally, the third section develops hypotheses that comprise the theoretical model.

Literature Review

Beyond Dyads

This paper begins to answer one of two questions Bagozzi (Bagozzi 1975) posed over thirty years ago. He argued that marketing theory should be concerned with two questions: 1) why do people and organizations engage in exchange relationships? and 2) how are exchanges created, resolved, or avoided? Primarily evaluating the second question, this paper draws on the Political Economy framework originally proposed by Stern and Reve (1980). In this conceptualization, the authors argue that beyond the actual exchange that takes place between firms, there is a set of processes and interactions providing the backdrop for an exchange opportunity. These seminal studies substantiate the need to broaden marketing investigations to include

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firm behaviors that do not necessarily involve exchange because those behaviors that lead to exchange or occur because of exchange are equally important.

Marketing scholars have assessed effects such as these, for example, by looking at the role of norms in structuring economically efficient relationships between independent firms, exploring how word-of-mouth referral behavior affects industrial buying across cultures, and assessing how buyer-seller relationships evolve over time (Heide and John 1992, Money Gilly, and Graham 1998, Narayandas and Rangan 2004, respectively). In these particular studies, broader constructs such as norms, referrals, and time – for example – are shown to affect dyadic exchange.

Studying Network Influences

An area of growing interest in the marketing literature is assessing the influence of networks on dyadic exchange. In sociology, Granovetter (1985) was among the first to popularize the notion that economic transactions are affected by both dyadic relationships, as well as overall network relationships (e.g., indirect network connections, such as a friend of a friend). He defines structural embeddedness as the idea that economic behavior is surrounded by, and, therefore, influenced by social relations. Furthermore, he argues that economic transactions – as a type of social behavior - are better understood when placed within their social contexts. Similarly, structuration theory focuses on the relationship between a network and an individual actor embedded in the network (Giddens 1979). Structuration is identified as the

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process by which individual actors affect the larger macro-structure (or network) and vice versa. Giddens argues that the symmetric influence occurs because the larger network provides rules and resources that enable individual action at the same time that individual action creates the structure.

Additional empirical research in the social sciences also emphasizes network, or structural, influence. It has been shown that social norms evolve with the market structure of a society and that larger societal systems combine with smaller scale interactions in processes of continuous restructuration (Ensminger 2006, Powell et al. 1996, Powell et al. 2005). Another study provides a network-level analysis of international trade relationships and suggests that network position explains varying levels of development across countries (Smith and White 1992).

In management, literature from the areas of strategy and organizational theory have demonstrated network influences on firm behaviors and outcomes. Based on ethnographic fieldwork, Uzzi (1997) creates a framework for assessing dimensions of embeddedness in the context of organizational and economic outcomes. He argues that network position affects the threshold for which positive embeddedness effects turn negative. In another example, Beckman and Haunschild (2002) demonstrate the importance of network partners' experiences in determining the price of acquisitions. They identify that networks, across industries, can be sources of learning for firms. Finally, Powell and colleagues (2005) study collaboration in the biotechnology

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industry and articulate four alternative logics of attachment which explain how dyads affiliate. Each describes a different behavioral mechanism: *accumulative advantage* describes an advantage in which those who begin with more partners significantly generate more partners than those without partners, *homophily* describes a "birds of a feather flock together" effect in which those firms which are more similar become partners, *follow-the-trend* describes a herd-like behavior in which firms follow other firms to a particular partner, and *multiconnectivity* describes the effect of a firm building multiple paths to partners in order to improve its reach to other partners and its diversity in partnerships.

In marketing, researchers have examined effects such as these in distribution channels (Moorman, Zaltman and Deshpande 1992; Jeuland and Shugan 1983; Kadiyali, Chintagunta, and Vilcassim 2000; McGuire and Staelin 1983). For example, McGuire and Staelin (1983) show that a lack of competition at the retail level of a distribution channel can motivate a manufacturing firm to extend down to the retail level in order to maximize profits. They argue that the lack of competition presents economic incentives for the firm to change the structure of its exchanges. Similarly, Wathne and Heide (2004) show that a firm's ability to adapt its customer relationship management strategy to uncertainties in its downstream relationships is dependent on management mechanisms used in its upstream relationships. Other researchers have shown that structural mechanisms such as tie strength and alliance composition can affect customer orientation (Rindfleisch and Moorman 2001).

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Portfolios of Relationships

To this end, the parallel notion of portfolio management is gaining prominence in business-to-business marketing (Wilkinson, Young and Freytag 2005, Fiocca 1982; Johnson and Selnes 2004). Portfolio management refers to coordination of the set of a firm's relationships, each of which has various characteristics and each of which serves the firm in different ways (Wagner and Johnson 2004, Gadde, Huemer, and Hakansson 2003). The existing literature emphasizes that within a portfolio, a firm must manage its various relationships differently. This study extends this idea by determining which portfolios most benefit a firm to discern which relationships the firm should develop, terminate, or initiate.

Because agencies are simultaneously managing many relationships with other firms that are themselves simultaneously managing many relationships, effects of relationships are difficult to untangle. As a result, the capability of creating, managing and terminating relationships has become a salient issue for many firms (Berry 1983, Johnson and Selnes 2005, Moller and Halinen 1999). Power/ dependence theories, relational contract theory, and social exchange theory (Heide 1994, Williamson and Ouchi 1981, Macneil 1980, Lambe, Wittman, and Spekman 2001, respectively) are among the many theories advanced to explain relationship management (Dwyer and Oh 1987; Ritter, Wilkinson, and Johnston 2004). However, instead of "becoming involved in complex motivational problems", this investigation turns toward a

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"detailed analysis of past buying behavior" (Gadde and Mattsson 1987, p. 31) in the context of advertising services, where past buying behaviors among three firms affects portfolio importance for advertising agencies.

A Triadic Perspective

Most important, Wuyts and colleagues (2004) are among the first in marketing to consider effects of multiple portfolios of relationships (see also Srivastava et al. 1998). They build on literature in sociology that identifies triads as sets of three social actors (Wasserman and Faust 1994, Skvoretz and Faust 1999). In particular, Wuyts and colleagues identify a buyer-vendor-supplier triad as shown in Figure 2.1. They establish that industrial buyers consider elements beyond the immediate transaction when determining their purchase behaviors. Their survey results show that buyers are influenced by the strength and number of their vendors' relationships with the vendor's suppliers. In the context of advertising, examining portfolio management from a triadic perspective is important because agencies must manage both their client relationships and their media supplier relationships over multiple exchange opportunities (Gadde and Mattsson 1987). Determining the relative importance of each portfolio is useful in these types of relational, or long-term, exchanges because researchers have shown that the process of developing interorganizational relationships is costly (Heide 1994, Ambler and Grayson 1999, Webster 1992).

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This dissertation is also concerned with three types of firms: advertising agencies, their clients, and media companies. In the top half of Figure 2.2, the firms are shown grouped by type. The bottom half of Figure 2.2 shows interfirm relationships, depicted as different types of lines among firms. Relationships among clients and media vehicles are indicated by solid lines to demonstrate that clients are placing advertising (i.e., buying advertising space) in particular media vehicles. Relationships between clients and agencies are also indicated by solid lines to demonstrate that clients have hired these agencies (i.e., buy services) to assist with advertising and media placement. Relationships between agencies and media are indicated by dotted lines demonstrating that agencies offer services related to those particular media vehicles. As middlemen, advertising agencies build relationships with clients as seen in the lines connecting agencies and clients, and agencies also place advertisements in media vehicles on their clients' behalf as seen in the lines connecting agencies and media vehicles.

Industry Background

To better understand triadic relationships in advertising, it is helpful to shed light on the business-to-business dimension of the advertising industry.
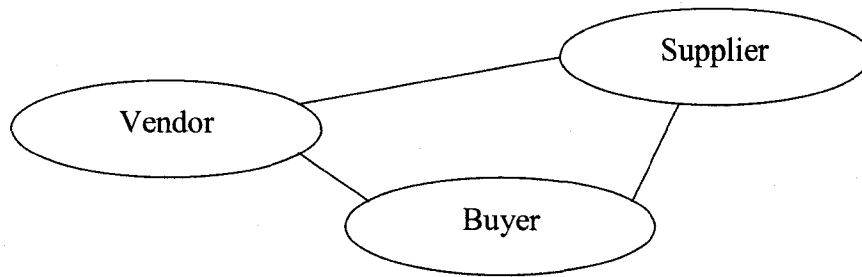
13

Figure 2.1. Triadic Perspective: Three types of firms (Wuyts et al. 2004)

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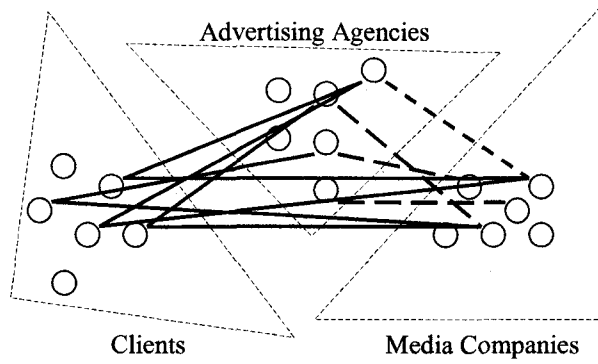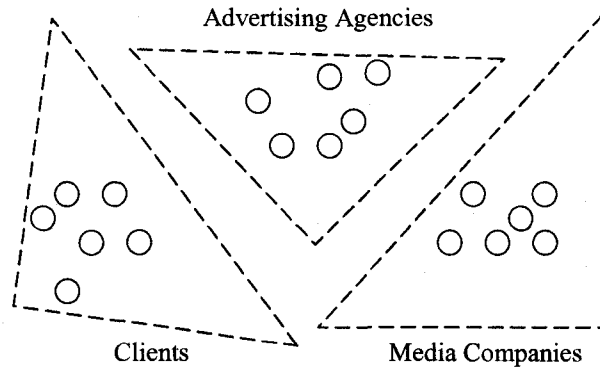
Figure 2.2. Triadic Perspective among three types of firms: advertising agencies, their clients, and media companies

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Technology and Diversity

As described in Chapter 1, the advertising industry, at the turn of the 21st century, was adapting to changing technological infrastructures spurred by the 1996 Federal Telecommunications Act and the resulting deregulation of media and broadband ownership (Miller 1995, Shugan 2004). At that point in time, technology-related factors such as the advent of the internet, along with mass conglomeration among broadcast and media companies, were among many technology-related factors transformed the advertising industry, including new media characteristics, transformation of business processes, and aggregated macroeconomic impacts (Durkin and Lawlor 2001, Kauffman and Walden 2001; Zhu, Kraemer, Xu et al. 2004). Moreover, changing consumer preferences and increasing levels of technological savvy among both consumers and firms had complicated managerial decision making with regard to media selection (Devaraj, Fan, and Kohli 2002). Selecting media vehicles was difficult because traditional metrics for measuring media effectiveness did not address the new forms and capabilities that media vehicles offered (Stewart and Pavlou 2002).

To demonstrate changes in technology, Table 2.1 lists the number and types of media vehicles in the years 2001 and 2005. As can be seen, the number of media types in 2001 is 13, while the number of media types in 2005 is 20. It is important to note, however, that the way in which media expenditures are being reported has changed. For example, 2001 expenditures in magazines might have included

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Business-to-Business magazines and Local magazines but expenditures in the sub-types of magazines were not reported. Meanwhile 2005 expenditures were divided into sub-types as separate line items. The appearance of these sub-types does not necessarily demonstrate that media such as Business-to-Business magazines and Local magazines have suddenly appeared. Instead their related expenditures may have been included under a more general category.

The Evolution of Advertising Agencies

Another stream of changes stemmed from competitive pressures among advertising agencies. Although American advertising agencies dominated the worldwide advertising business until the 1980's, a wave of successful British agencies had risen to importance. Until then, the advertising industry was relatively unconcentrated (King, Silk and Ketelhohn 2003). Grabher (2001) assesses the critical 20-year transformation which began in the 1980's as American agencies followed their clients abroad to continue providing services related to ensuing trends in the internationalization of mass products. Compelled to expand overseas, American agencies began operating from offices in London, and soon enough, Soho had become a hub of advertising activity. By 2000, Saatchi & Saatchi as well as WPP, both London-based agencies, were among the largest worldwide advertising companies.

Table 2.1. Media types (2001 vs. 2005)

n	2001 (n=13)	2005 (n=20)
1	Magazine	Magazine
2	SundayMagazine	SundayMagazine
3		BtoBMagazine
4		LocalMagazine
5		SpanishlanguageMagazine
6	Newspaper	Newspaper
7	NationalNewspaper	NationalNewspaper
8		SpanishLanguageNewspaper
9		FSI
10	NetworkTV	NetworkTV
11		SpanishLanguageTV
12	SpotTV	SpotTV
13	SyndicatedTV.	SyndicatedTV
14	CableTVNetworks	CableTVNetwork
15	NetworkRadio	NetworkRadio
16	NationalSpotRadio	NationalSpotRadio
17		LocalRadio
18	Outdoor	Outdoor
19	Internet	Internet
20	Yellow Pages	Yellow Pages

Source: *Advertising Age*, 100 Leading National Advertisers Report 2002 & 2006

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The rise of such British agencies, as reported by Grabher, resulted from a creative advertising orientation which contrasted that of American agencies. Specifically, while American marketing campaigns tended to be "utilitarian, focusing on functional attributes", British marketing campaigns focused on "irony, self-deprecation, and self-reflexivity" (page 352). Although seemingly unrelated to this study, Grabher argues that this British orientation changed how agencies created advertisements because content then required greater consumer input (via, for example, focus groups and interviews), which increased the need for personnel and methods of interacting with consumers. In 1987, WPP engineered a hostile takeover of J. Walter Thompson, the "oldest, largest, most respected" ad agency in America. Within the next 3 years, WPP also acquired Ogilvy & Mather as well as Young & Rubicam, both among the most prominent American agencies. As a result, in 2001 WPP became the largest global advertising organization, generating over US$8 billion in worldwide revenues, operating more than 1000 offices in over 100 countries (*Advertising Age* 2002). In effect, WPP became the first true advertising agency global conglomerate.

Using network visualization in Figure 2.3, it is possible to see clusters of agency conglomerations in 2002. This sociogram is informative because it conveys that the ownership network among advertising agencies is disconnected because advertising agencies are connected within their groups, but there are no connections between the groups. It should be noted that only those agencies connected to

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conglomerates are shown here ($n = 257$); isolate agencies (those that are <u>not</u> connected by ownership to conglomerates, $n = 28$) are not included.

A Two-Flow Market in Advertising

Technological advances in media and conglomeration among advertising agencies are highlighted because these two factors were instrumental in changing the landscape of the advertising industry. A motivation for this study is to better understand how agencies can manage media diversity, as well as respond to overarching trends in conglomeration. Most recently, a looming issue for agencies is the perception among clients that agencies are the least competent in delivering marketing technology when compared to other service providers such as systems integrators and management consultants (Kim, Anderson, Katz, and Glass 2007). This study addresses whether agencies should in fact be concerned with developing competency in regard to marketing technology, but does not address how client perceptions can be managed. More broadly speaking, this study examines advertising agency performance and effects on performance based on both developing competency with regard to marketing technology and conglomeration.

With this in mind, it is helpful to take a different perspective of the business-to-business side of advertising. Table 2.2 summarizes key characteristics of the industry, included number of advertising agencies, media types, services types and

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U.S. advertising expenditures. Accordingly, there are two ways to think about the relationships among the 3 types of firms included in this study. First, there is the perspective of traditional marketing channels which views the product as airtime or space that originates from the media companies and is sold through advertising agencies who act as intermediaries to the final end users, which are the agency's clients. This traditional channels perspective is shown as *dotted* arrows in Figure 2.4.

Alternatively, the motivation for this study prompts a reverse perspective of these relationships, shown as *dashed* arrows in Figure 2.4. Given the increased availability and diversity of media vehicles, agencies and their clients have become vigilant in their selection of media partners (Stewart and Pavlou 2002). Recent theoretical studies in marketing acknowledge a two-market flow among media companies, advertising agencies, and clients (Dukes and Gal-Or 2003; Liu, Putler, and Weinberg 2004, Shugan 2004) and researchers have called for an increased understanding of the differences in the market for advertisers versus the market for viewers. In one direction, air is sold to agency clients while, in the other direction, agency clients are selecting effective media vehicles for reaching its target markets (or target eyeballs, as referred to in the advertising industry). While the advertising

21
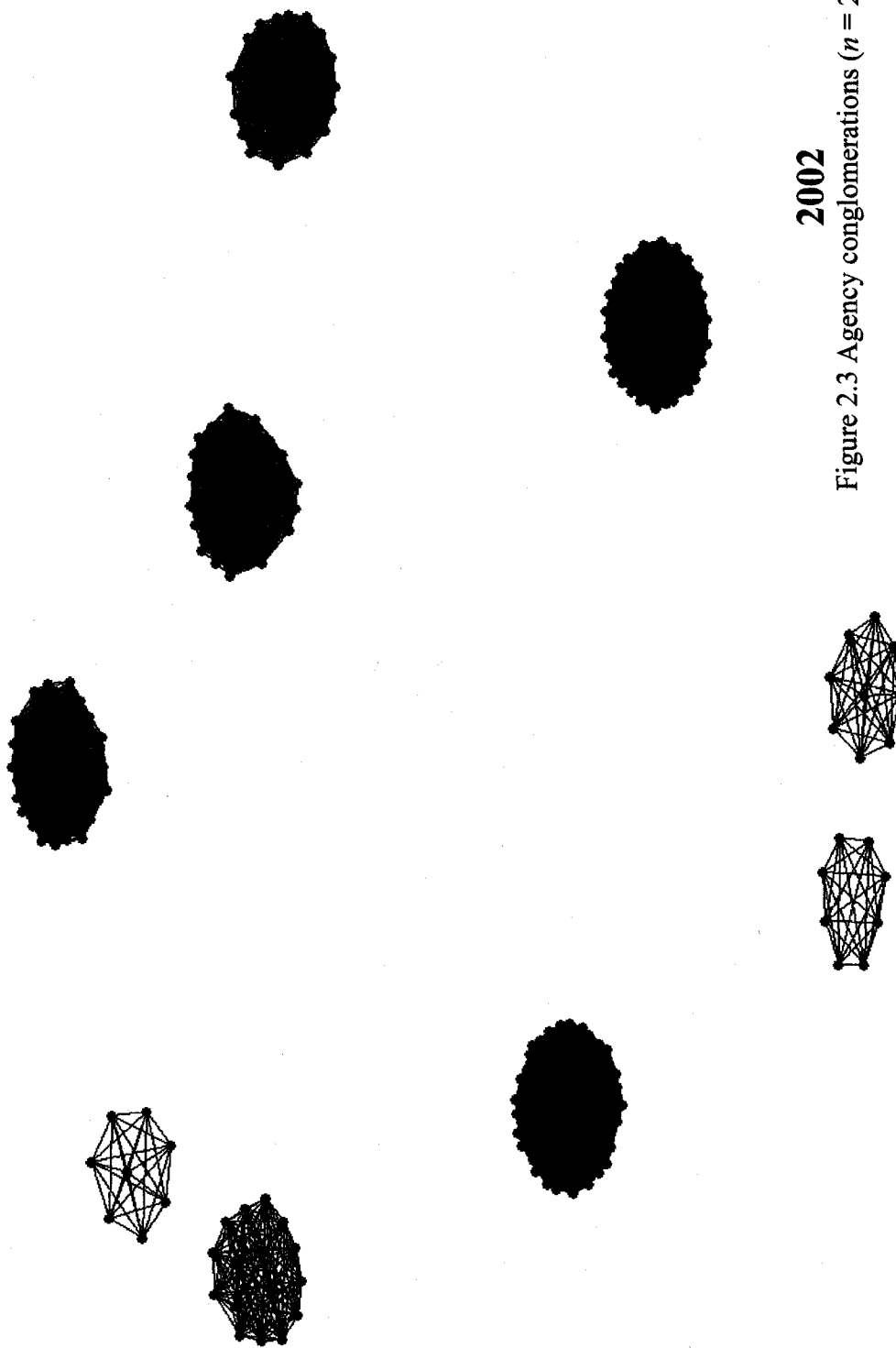
2002

Figure 2.3 Agency conglomerations ($n = 257$)

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literature provides extensive investigations for the viewer market, there is little

research examining the air market. This investigation begins to address this gap.

Hypotheses

Services Diversity

Extending Blau's Index of Heterogeneity and the general notion of diversity

(Blau 1977), the more particular concept of Services Diversity addresses the extent to

which a firm's set of offered services has variety or is heterogeneous. Other

generalized notions of diversity have been studied in marketing by Wuyts and

colleagues (1996), for example, in the context of innovation where the researchers find

that partner diversity enhances innovation. Other researchers (Frels, Shervani and

Srivastava 2003, Stremersch et al. 2007) address heterogeneity by using terms such as

availability and variety in the context of consumer consumption of technological

innovations. Most studies operationalize the construct by counting the number of total

complements available (e.g., computer / laptop accessories such as docking station,

mouse, CD burners or external hard drives).

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Table 2.2. Overview of Relevant Changes in Advertising & Media (2001-2005)

	2001	2002	2003	2004	2005
# of Advertising Agencies*	2828	3270	3476	3635	3742
Media types**	13	13	20	20	20
Service types***	51	52	52	55	55
Total U.S. Advertising Expenditures** (millions)	231,287	236,875	245,477	263,766	271,074

Based on number of agencies reported in the American Association of Advertising Agencies Redbooks (2001-2005)
*** As reported by Advertising Age, 100 Leading National Advertisers Reports (2002-2006)*
**** Based on services reported in the American Association of Advertising Agencies Redbooks (2001-2005)*

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Traditional marketing channels

Clients (Advertisers) — air/space — Agencies — air/space — Media (Viewers)

messages, products, services
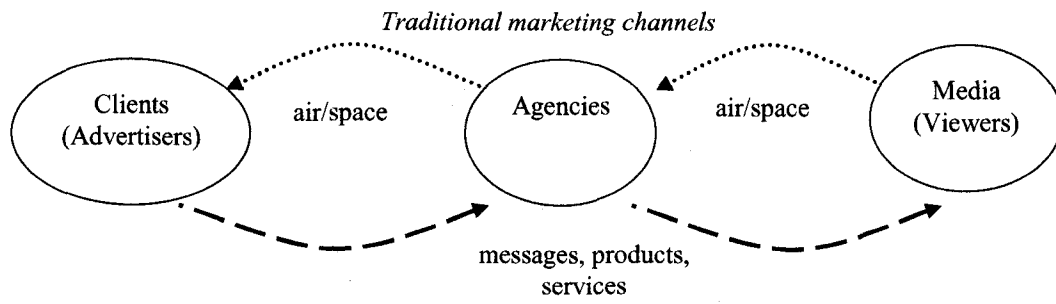
Figure 2.4. Two-Flow market for advertisers (selling air) and viewers (selling eyeballs)

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The diversity aspect of service provision is important because service quality is characterized to vary from producer to producer, from customer to customer, and from day to day (Parasuraman, Zeithaml and Berry 1985). Services diversity is important because providing a broader selection of services can enhance the customer relationship and as Berry (1983) acknowledges, is especially important in multi-service organizations. In the advertising industry particularly, it has become important to provide broader arrays of services for clients and provide the "one-stop access" that global clients demand (Tharp and Jeong 2001). An agency with a larger scope of services might provide greater access to a broader array of media vehicles (Durkin and Lawlor 2001). As a result, it is more likely that an agency can respond quickly and efficiently to client advertising needs (Michell and Sanders 1995). Furthermore, offering a variety of services can yield effective e-business strategies because clients can reach different target markets, and clients are likely to adopt media as it depends on those benefits and situational characteristics (Wendel and Dellaert 2005). Advertising research also suggests that clients are likely to resolve inadequacies in their media strategy by trying new media vehicles (Tellis 2005), and when agencies can offer these alternatives, its set of clients is likely to increase diversity in its own media consumption.

Breadth of the Client Portfolio

Responding to the call of Taylor (2002) to better understand the dynamics between advertising agencies and their clients, the concept of the client portfolio is developed. When an advertising agency manager makes strategic decisions regarding its service offerings, the manager usually considers how that decision might impact its set of clients, or its client portfolio. As such, resulting changes in the client portfolio can be assessed on many dimensions including size, stability, depth or breadth.

"Breadth" captures two aspects of the client portfolio that are relevant for this study: size and diversity in client media consumption. First, size of the client portfolio is important because it is useful to know whether changes in services diversity will attract new clients or cause the agency to lose existing clients. Second, in the client portfolio, diversity in client media consumption is important because it is useful to know whether changes in services diversity will encourage clients to place advertising across broader media types. From a managerial perspective, these two aspects suggest whether changes in an agency's services diversity drives performance by attracting new (i.e., additional) clients or by driving sales of diverse media types. Thus, for the purposes of this study, breadth of the client portfolio can be achieved *horizontally* by adding clients or *vertically* by encouraging clients to broaden their media expenditures.

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When clients are able to access diverse services related to advertising and media, they are likely to adjust their own advertising behaviors. The growing popularity of the Integrated Marketing Communications (IMC) concept underscores this phenomenon and outlines the strategy of "conveying unified messages to customers via the correct blending of the marketing mix" (Kitchen et al. 2004, page 1420). Kitchen and colleagues (2004) explore the development of IMC and explain its origins in Western countries and its diffusion throughout the world. Its growing presence occurs because clients find increased value in utilizing a variety of media since it increases the client's ability to reach its target markets across all forms of communications (Wendel and Dellaert 2005, Belch and Belch 1995). In fact, it is suggested that IMC strategies can boost sales and profits for firms that employ them (Schultz and Kitchen 1999), which makes the IMC strategy more effective and more attractive for clients. As a result, agencies that offer increased services diversity will increase breadth of the client portfolio. As shown in Figure 2.5, it is hypothesized:

H_1: *When services diversity is increased, there is increased breadth of the client portfolio.*

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Effects on Agency Performance

The recent marketing literature suggests that the volume of advertising for each client should increase when media is more differentiated (Dukes and Gal-Or 2003, Burn Marshall and Wild 1999). It has also been suggested that increased services will result in an increased volume of business because the agency will deliver "one stop" access and attract large clients that demand easily accessible advertising services (Tharp and Jeong 2001). To corroborate, a key study in *Management Science* reports that "bundling large numbers of unrelated information goods can be surprisingly profitable" (Bakos and Brynjolfsson 1999, page 662). The researchers argue that the law of large numbers ensures that bundles of information goods will be more attractive to clients than individually-offered information goods. The researchers argue that, despite the uncertainty of predicting consumer valuations for a bundle, bundles will be more effective than individual goods in driving sales and profitability. Thus, as seen in Figure 2.5, it is hypothesized:

H_2: For a given agency, increased breadth of the client portfolio leads to increased agency performance.

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Network Position

Network position, in the context of this study, refers to an advertising agency's position among other advertising agencies. More specifically, network position considers advertising agencies and the relationships among them that exist because they are owned by the same company. Thus, advertising agencies have higher network position scores when they are owned by larger companies, while agencies have lower network position scores when they are either owned by small companies or are isolates (not connected to any conglomerate).

Araujo and Easton (2005, p.30) define network position as a market asset that gives a firm access to the assets of other firms. Network position is important in advertising because the advertising agency network is highly concentrated with four global network communications agencies accounting for more than 56% of marketing communications spending in the U.S. (Advertising Age 2006). As described earlier in this chapter, many advertising agencies transformed themselves into "Global Network Communications Agencies" (Tharp and Jeong 2001, Grabher 2001, King et al. 2003). In this sense, advertising specialists have merged in order to provide "brand-planning skills, an understanding of relevant consumers, decision aids that facilitate decision processes, information systems that maximize experiences and communications, and an ability to bridge cultures" (Tharp and Jeong 2001, p. 111).
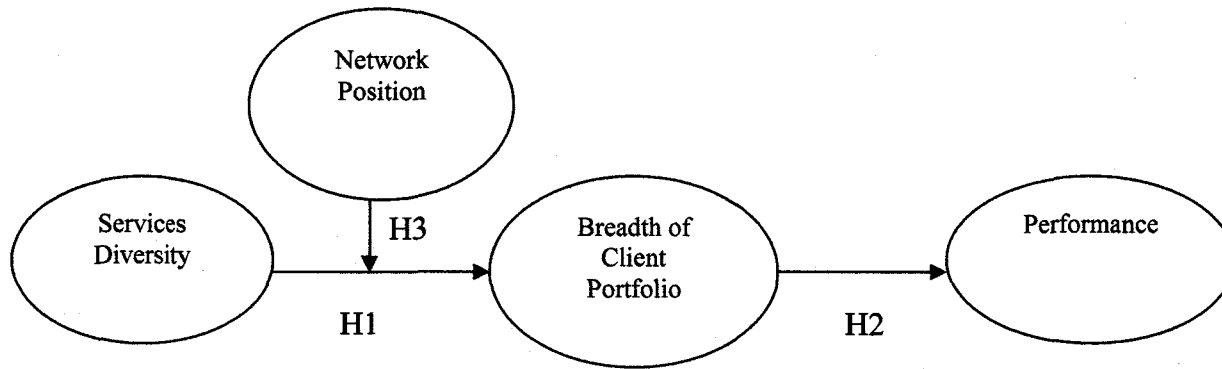
Unit of Analysis: Advertising Agency
Figure 2.5. Conceptual Model

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Highly central agencies are expected to have more access to financial resources and infrastructure support on all aspects of service provision (Duncan and Ramaprasad 1995, King et al. 2003). It has been shown that a differential advantage for these agencies has been their embeddedness in larger networks (Duncan and Ramaprasad 1995). As a result, highly central agencies are able to efficiently design, implement, and manage global communications campaigns.

However, because agencies that are less central do not have these advantages, it is expected that services diversity should compensate and have a stronger effect for agencies that are less central. Offering diverse services improves an agency's probability of being chosen by clients because the services portfolio will be more effective at meeting client needs despite the agency's lack of centrality in the agency network. The ability of an agency to match clients with the appropriate media vehicles yields increased opportunity for improved performance (Bavelas 1948, Anthonisse 1971, Freeman 1977). Furthermore, a key factor in portfolio analysis is the number, volume, or size of the portfolio and increasing the number of service types should improve firm performance since selling more should lead to increasing revenues (Fiocca 1982). On the other hand, highly central agencies will be able to partner with other agencies in the conglomerate since clients are more willing to deal with agencies that are formally affiliated (Schultz and Kitchen 1997). As a result, services diversity will also be important for highly central agencies, but not as

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important for highly agencies when compared to less central agencies. It is hypothesized that an agency's position in the agency network will moderate the effects described in the previous section. As shown in Figure 2.5, and formally stated here,

H₃: The effect described in H₁ is stronger for agencies that are less central compared to the effects for agencies that are more central.

Chapter 3. Research Design

This chapter is organized into four sections. First, the research design is discussed, followed by an outline of the measures used for each variable. Then the data collection and the sample are described, followed by a discussion of the analytical approach.

Design

Detailed in Chapter 2, the proposed conceptual model is shown again in the following pages as Figure 3.1. In this research design, the unit of analysis is the advertising agency. There is one independent variable, Services Diversity, and one moderating variable, Network Position. The dependent variable is Performance and the mediator is Breadth of the Client Portfolio. Discussed in detail below, the constructs of Services Diversity and Breadth of Client Portfolio are operationalized using two reflective measures since the two measures used represent two related dimensions of the underlying variable. Multiple measures are used because this area

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of theory is new and it is helpful to discern which operationalizations might be more relevant for the study.

In order to test for the hypothesized moderation effect posited in Hypothesis 3, it is necessary to first identify main effects based on the exogenous variables, Services Diversity and Network Position. As shown in Figure 3.2, a structural model is drawn. As can be seen, Hypothesis 1 & 2 are included here because these two hypotheses can be tested using the entire sample. (Hypothesis 3 will be tested in a subsequent analysis.) Hypothesis 1 represents the path services diversity → breadth of the client portfolio, while Hypothesis 2 represents the path breadth of the client portfolio → performance. Additionally, direct paths are estimated for the following main effects: services diversity → performance, network position → services diversity, and breadth of the client portfolio → performance. To determine how the model predicts firm performance for three successive years (annual revenues 2002, 2003, 2004), the same model is estimated three times but with different dependent variables. This is done to check whether effects on performance occur differently from year to year, and to check whether the parameter estimates remain stable. Based on the work of Stremersch, Tellis, Franses and Binken (2007), one may expect that effects based on the processes studied may change as time passes. To include the notion of Granger causality in the model, the independent variables are measured based on 2002 data (Stremersch, Tellis, Franses and Binken 2007; Granger 1969).

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Then, in order to test for the hypothesized moderation effect posited in Hypothesis 3, the sample is split into two groups (high centrality and low centrality, based on the median of the moderating variable) and the model is estimated separately for each group. Resulting differences (if any) in parameter estimates and/or model fit for the groups would suggest the existence of a moderation effect. Then toward confirmation of the PLS results and following the procedure recommended by Chin and colleagues (2007), the moderation effect is also tested for statistical significance by standardizing each measure in the independent and moderator variables, then multiplying each independent measure by each moderating measure in order to form an "interaction block". If the interaction variable demonstrates a statistically significant path estimate, then the moderation effect is statistically significant. Furthermore, to determine whether the moderation effect predicts firm performance for three successive years (annual revenues 2002, 2003, 2004), the same model is estimated three times for each group but with different dependent variables as before.

Measures

Services Diversity

Measures used in the study are summarized in table 3.1. The independent construct is services diversity, which captures an agency's behavior with regard to service offerings. In the marketing literature, this construct has been referred to with labels such as availability, complements, or variety, but has been most often operationalized as a count measure (Stremersch, Tellis, et al. 2007). In this study, two measures are included: count and diversity.

First, the count measure is the sum of service types offered in a particular calendar year. Next, the diversity measure is based on the work of Wuyts, Dutta and Stremersch (2004) in marketing, Powell, Koput, and Smith-Doerr (1996) in organization theory, and Blau (1977) in sociology. The diversity measure used is Blau's Index of Heterogeneity in Sociology (or Herfindahl's Index in Finance). It is used because services qualitatively differ from one another and are scored based on categorical attributes (Harrison and Klein 2007). Guided by the work of Harrison and Klein (2007), alternative measures based on separation are not appropriate because services do not exist on a continuous scale with respect to any particular variables, and alternative measures based on disparity are not appropriate because services are not examined in terms of importance with respect to any particular factor.
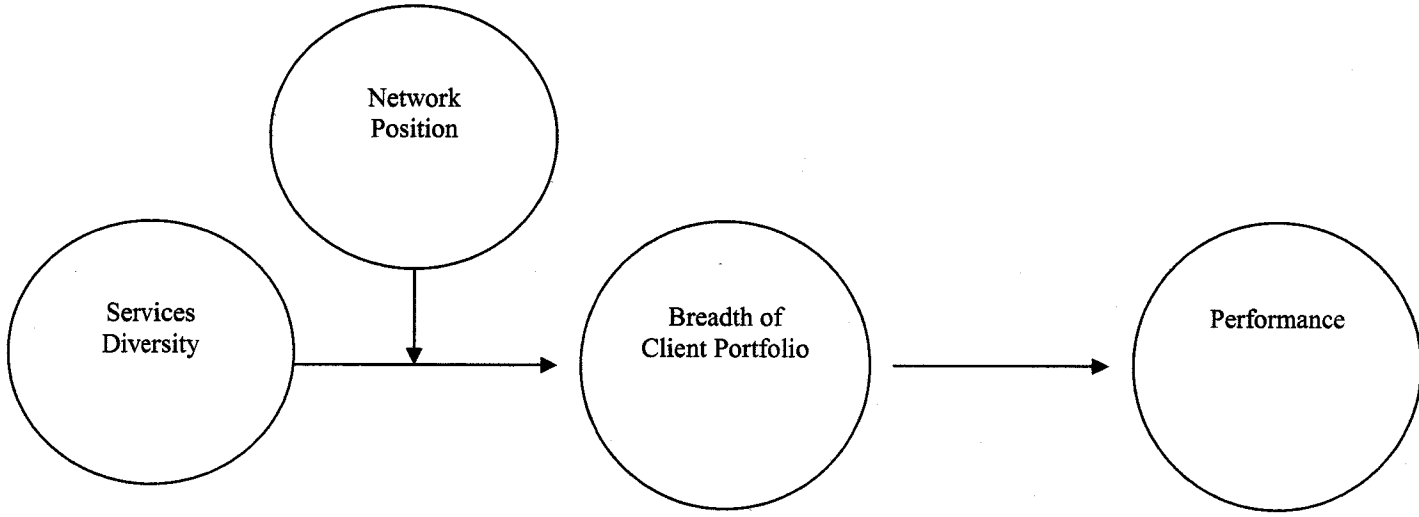
36

Figure 3.1. Conceptual Model
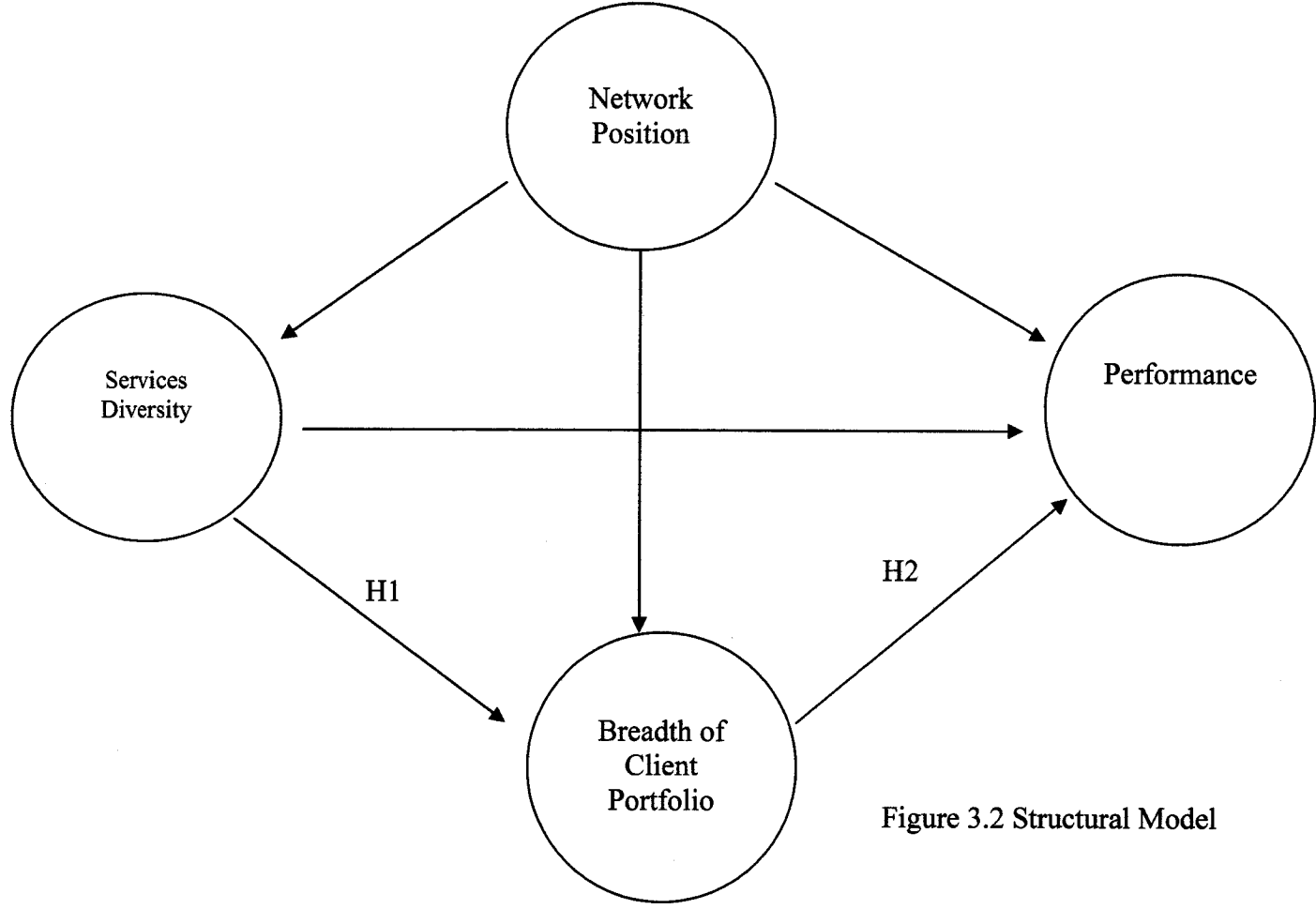
Figure 3.2 Structural Model

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Table 3.1. Summary of Constructs and Variables Used in Study

Constructs	Variables
Services Diversity: Extent to which a firm's set of offered services has variety or is heterogeneous	<u>Services Diversity in 2002:</u> The extent to which an agency offers a diverse array of advertising services. The diversity index equals zero when an agency offers only one service and it is close to one when an agency generates revenues evenly from many service types. <u>Services Count in 2002:</u> The sum of service types offered by an agency in a particular calendar year.
Network Position: An advertising agency's position in the conglomerate network of advertising agencies	<u>Degree Centrality in 2002:</u> The sum of connections that an agency has in the conglomerate network of advertising agencies. A higher score implies that the agency is part of a large conglomerate, while a lower score implies that the agency is either part of a small conglomerate or an isolate. The resulting score is normalized (divided by the maximum number of connections possible, which is expressed as N-1 where N represents the total number of nodes in the sample), which allows networks of different sizes to be compared. The score is then multiplied by 100.
Breadth of the Client Portfolio: Refers to size of an agency's set of clients and the extent to which an agency's set of clients consumes diverse media	<u>Client Diversity of media expenditures in 2002:</u> The extent to which an agency's clientele's media expenditures are diverse. A lower score suggests that an agency's clientele's media expenditures are more concentrated, while a higher score suggests that an agency's client media expenditures are spread more evenly among many media types. <u>Client Count in 2002:</u> The sum of clients in the client portfolio that are among the 100 Leading National Advertisers in the U.S.
Performance: Success of agency	<u>Revenues (separately for 2002, 2003, 2004):</u> Annual Revenues

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The diversity measure is calculated in the following way. For agency i in year t (where t = year 2002), the amount of an agency's revenues from a particular service type j is noted as $n_{it,j}$ and the agency's total revenues from all its identified service types is n_{it}. The proportion of agency i's revenues from a service type j, over total revenues, is denoted $p_{it,j}$ and is given by $p_{it,j} = \dfrac{n_{it,j}}{n_{it}}$. Each $p_{it,j}$ is squared and then the sum is taken over all j and subtracted from 1, resulting in the index of diversity, y_{it}, so that

$$(1) \qquad y_{it} = 1 - \sum_{j=1}^{J} p_{it,j}^2$$

The diversity index equals zero when an agency generates revenues from only one service type and it is close to one when an agency generates revenues evenly over many service types.

Network Position

The moderating construct is network position and its associated measure is degree centrality in the agency conglomeration network. In this network, agencies are connected when they are owned (partially or entirely) by the same company in 2002. To quantify these relationships, a sociomatrix consisting of agencies is constructed. For every agency$_i$ which belongs to the same conglomerate as agency$_j$, there is a "1" in the $x_{i,j}$ cell of the sociomatrix to demonstrate "agency$_i$ and agency$_j$ are owned by the same parent company". The $x_{i,j}$ cell would otherwise contain a "0" denoting that

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agencies are not connected by ownership (Freeman 1979, Wasserman and Faust 1994).

Degree is calculated as the sum of an agency's direct connections. For every agency n_i, the sum of its row (0 or 1 in the $x_{i,j}$ cells) is calculated and the measure of degree centrality C_D for a given agency n_i is the number of agencies directly connected to agency n_i. The resulting score is normalized (divided by the maximum number of connections possible, which is expressed as N-1 where N represents the total number of nodes in the sample), which allows networks of different sizes to be compared. Then, the normalized score is multiplied by 100.This conceptualization of centrality captures the fact that an agency is part of a conglomerate, as well as the size of the conglomerate (if the agency is part of a conglomerate). A highly central agency has many other agencies in its conglomerate and can minimize costs and time to communicate or interact with other firms in the network.

Breadth of Client Portfolio

The mediating variable, breadth of client portfolio, is analogous to the independent variable, except that it is related to a firm's set of clients. Similarly, there are two measures used: count and diversity. First, the client count measure is the sum of an agency's clients that are among the 100 Leading National Advertisers in the U.S. in 2002. Next, the diversity measure is based on the diversity measure used in the independent variable and is described in the following paragraph.

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For client i in year t (where t = year 2002), the volume of a client's expenditures to a particular media vehicle j is noted as $c_{it,j}$ and the client's total media expenditures to all media vehicles is c_{it}. The proportion of client i's media volume to media vehicle j, out of the total media volume, is denoted $q_{it,j}$ and is given by

$q_{it,j} = \dfrac{c_{it,j}}{c_{it}}$. Each $q_{it,j}$ is squared and then the sum is taken over all j and subtracted

from 1, resulting in the index of diversity for each client, $v_{i,t}$, so that

$$(3) \qquad v_{it} = 1 - \sum_{j=1}^{J} c_{it,j}^2$$

Thus, each client has associated $v_{i,t}$ score. These scores are associated with those agencies reported as "hired agencies" for the client. Then the individual diversity $v_{i,t}$ scores are averaged across clients for each agency to find the mean diversification across agency clientele's media portfolios, as seen in Equation 3:

$$(4) \qquad \bar{v} = \sum_{i=1}^{I} v_{i,t}$$

Performance is measured using annual revenues, separately in 2002, 2003, and 2004.

Data

Data were collected from two secondary archival sources that are subscription-based. The first data source is *Advertising Age* published by Crain Communications, a worldwide publisher of over 25 industry journals and newspapers. Launched in 1930,

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Advertising Age is an advertising and marketing industry trade journal that has monitored the growth and change of media vehicles, media companies, marketing campaigns, advertising agency conglomerates, and advertising expenditures. Specifically, two reports, "*100 Leading National Advertisers Report*" and "*Annual Agency Report*", were acquired over a 5 year period (2002-2006) for a total of 10 reports.

The second data source is *The Advertising Red Books*, published annually by LexisNexis/Reed Elsevier, worldwide publishers of information used for professional purposes in fields such as business, law, and academia. Established over 100 years ago, *The Advertising Red Books* annually report detailed information about worldwide advertising agencies and advertisers. Specifically, data reporting agency service types, agency revenues by service type and total annual revenues by agency were acquired for a 6 year period: 2001-2006.

Data Preparation and Sample Size

The reports described above were compiled and unique codes were assigned to advertising agencies (*n=755*) that appeared in the data which covered years 2001-2006. Then, in order to focus on the relationships among agencies and clients, it was necessary to narrow the sample to those agencies listed as "hired agencies" in the *100 Leading National Advertisers* report for year 2002, which reduced the sample size to *n=317* (Advertising Age 2003).

Next, network position was calculated based on reports of agency ownership in the *Annual Agency Reports* referred to above. Agencies do not explicitly report network position; instead, the reports provide information about the world's 25 largest advertising organizations and convey information about conglomerate ownership. The first step in calculating the centrality scores was converting the information on conglomerate ownership of advertising agencies in 2002 (based on the 2003 *Agency Report*, which reports data for 2002) to an incidence matrix composed of agencies and conglomerates (agencies in *Agency Report n=285*, conglomerates *n=158*). Of the 285 agencies included in this report, 28 were isolates or were stand-alone advertising agencies. Examples of such isolate agencies include Hakuhodo, a Japan based agency which is ranked 8th worldwide, and Carlson Marketing Group, which is ranked 12th worldwide. Whether owned by complete ownership (100% ownership) or cross-ownership (for example, 30% ownership), ownership is represented by the presence of a relationship between the agencies. Using UCInet, degree centrality scores are computed and normalized for each agency, as described in the Measures (Network Position) section of this chapter.

However, not all agencies included in the 2002 *Agency Report* data were reported as hired agencies in the 2002 *Leading National Advertisers* data. Vice versa, there were agencies that were hired by the 100 leading national advertisers that were not listed in the 2002 agency report data. For those agencies (*n=12*) that were not

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listed in the agency report but were listed as hired agencies in 2002, information regarding the condition of not being affiliated with a conglomeration was obtained and confirmed through archival research in *The Advertising Red Books* and past issues of *Advertising Age,* as well as individual agency websites.

Third, to obtain data for the services diversity measures and revenues measures, data was collected from *The Advertising Red Books* based on self-report data for agency service types and revenues. It should be noted that *Advertising Age* reports that many top agency executives would not provide data for the first time in the year 2002 due to changes in 2002 regulations (Advertising Age 2003). The resulting sample size was $n=112$ (isolates $n=40$) and missing data were replaced by the means of their respective variables during model estimation using Smart PLS and SPSS.

During preliminary analyses, one particular agency, Regan Campbell Ward, was found to be an outlier in the sample because its services diversity score increased over 5% from 2001-2002 (sample average is 1.1% change). Also, its revenues increased almost 67% in just one year. Although this agency demonstrated support for the hypothesized model, it was removed from the study so that results would not be biased toward supporting the hypotheses. As a result, the findings are more conservative but can be interpreted more strongly.

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For the purposes of empirically assessing the evolution of the advertising industry, as well as mass media communications, it was important to collect longitudinal data for this initial study and for future research. However, the purpose of this dissertation is to examine the hypothesized theoretical relationships outlined in Chapter 2 and establish a baseline model on which later longitudinal studies can be conducted. For this reason, the data used for this dissertation is limited to the years 2002-2004.

Analytical Approach

Data was analyzed using social networks analysis, partial least squares (PLS), and multiple regression. These are described in detail below.

Quantifying Relationships with Social Networks Analysis

In marketing, Iacobucci and Hopkins (1992) were among the first to utilize social networks analysis and defined a "network" as a set of actors and the relationships among them. A more formal definition from Wasserman and Faust (1994) outlines a network as a finite set or sets of actors and the relation or relations defined on them. These definitions hold true for network analysts across disciplines, including – but not limited to - sociology, anthropology, psychology, population ecology, and physics (Wasserman and Faust 1994). Freeman (1984) discusses social networks analysis as methods that provide formal statements about social properties and processes, as well as methods that define concepts in precise and consistent ways.

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Its measures, methodologies and theories are used for two main purposes: 1) to quantify actors and the relationships among them and 2) to formulate and test theoretical causes and/or effects of the interrelatedness among actors.

Generally speaking, actors can be animals, people, organizations, or countries, while relationships can be based on social, economic, or psychological exchanges. Furthermore, relationships can be binary or valued (i.e., coded, for example, by number of contacts, valence, or percent of profit). Examples of networks include families (loving relationships among people), distribution channels (sales relationships among organizations), or trade flows (exchange relationships among countries). In marketing, applications of the network perspective are important for many areas, such as buyer-seller relationships, consumer behavior, and strategic alliances (Iacobucci 1996).

One of the most appealing nuances of Social Networks Analysis is the ability to visualize the data and generate numerical values which "match" the visualizations. In fact, data can be equivalently represented in three forms: sociograms, sociomatrices, and algebraic forms (Freeman 1989). However, each form can be used for different analytical purposes (Freeman 1989). Sociograms, which utilize graph theory to portray group structure (Moreno 1953, Harary 1969, West 1996), are visual representations that convey quantitative and qualitative information about the network. Visualization software used in this study include Netdraw (Borgatti 2002). The data

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can also be represented using sociomatrices and algebraic forms, which quantify and measure relevant attributes of the actors, relationships among the actors, or networks (which include both the actors and the relationships). For these purposes, UCINET was used (Borgatti, Everett, and Freeman 2002). The resulting numerical scores for network structure and individual actor scores or network positions can then be used as variables in other statistical analyses (Wasserman and Faust 1994).

Examining Group Differences using Analysis of Variance (ANOVA)

ANOVA is used to test for significant differences between group means, which assumes that the researcher is interested in examining sources of heterogeneous effects based on specified variables. In this study, the use of ANOVA is particularly relevant because it provides the ability to detect an interaction effect, as is hypothesized in the conceptual model. Furthermore, it is used to validate that groups identified in the analysis are significantly different

Model Estimation using Partial Least Squares

Partial least squares (PLS) is the name for a class of methods that calculates pattern coefficients and parameter estimates (Wold 1963). Combining the approaches of principal components analysis and multiple regression, PLS has been used in fields such as chemometrics (Geladi 1988), biology (Navarro et al. 2004), and psychology (Henningsson et al. 2001), as well as in management science (Fornell and Bookstein 1982, Graham et al. 1994, Naik et al. 2000, Marcoulides and Sanders 2006). In

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particular, PLS estimates a linear model using iterative ordinary least squares (OLS) regressions and explains observed measures in the dependent variable given observed measures in the independent variables (Chin et al. 2003). It has been compared favorably to approaches such as sliced inverse regression and ridge regression (Wold 1993, Naik and Tsai 2000).

The goal of PLS is to minimize residual variances, which contrasts the approach of maximum likelihood estimation which seeks to maximize the probability of the observed data given the hypothesized model (Fornell and Bookstein 1982). In research settings based on networks, the non-independence of observations assumption is violated because the observations are related by a specified network. Non-independence, or dependence, of observations produces correlated residuals most likely because higher level constructs might be affecting their scores (in this study, the network is affecting the firms). This is a problem in most maximum likelihood estimation techniques because residuals are assumed to be random. PLS allows residuals to have structure and seeks to minimize variance among residuals, which makes it particularly appropriate for networks-based studies. Referred to as "soft modeling", PLS does not make distributional assumptions about the data, which relaxes many of the data constraints imposed by maximum likelihood estimation techniques. SmartPLS, the PLS software used for this dissertation, conducts a bootstrapping approach which generates p-values for significance testing (Ringle et al. 2005). The non-distributional approach of PLS and its associated bootstrapping

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method for testing statistical significance are appropriate for network-related studies because t-values – such as those reported for maximum likelihood estimations – would be overstated due to the violation of the non-independence of observations assumption, as described above.

PLS is appropriate for this dissertation based on other reasons as well. First, PLS has been used in the marketing literature in the context of *media research* to handle *interaction effects*; and both are key elements in this dissertation (Naik and Tsai 2001). Naik and Tsai (2001) demonstrate that PLS parameter estimates continue to be robust in the presence of strong multicollinearity. PLS has also been shown to be especially useful in exploratory research and theory generation, which makes PLS especially appropriate for this dissertation because the hypothesized theoretical relationships have not previously been empirically tested in the substantive context of advertising (Falk and Miller 1992). Testing the hypothesized system of variables and their influences on each other, in addition to the expected influences on the dependent variable, is possible with a path analysis method such as PLS because moderation and mediation effects can be simultaneously examined. Additionally, PLS handles multiple measures as specified for particular variables (in this study, services diversity and breadth of the client portfolio) and is particularly appropriate when the data consist of different levels of measurement (e.g., count data, continuous data) (Fornell and Bookstein 1982).

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Triangulating results with Multiple Regression

One of the strengths of PLS is estimating the importance of particular measures to the overall hypothesized model. It does this by assigning a score to each measure by determining its association with the blocks (i.e., variables) specified by the researcher in a way that is similar to principal components analysis. Based on this score, it is possible to retain a subset of measures that are theoretically and statistically meaningful so that they can be included in further analyses (Abdi 2003). Here additional estimation is completed using multiple regression to triangulate with results obtained by PLS (McGrath 1982). Because this is an initial empirical study, results obtained with "soft modeling" (i.e., PLS) can be more strongly interpreted when complemented with a more commonly used method with a different set of weaknesses.

Chapter 4. Results

Results of the empirical study are reported in four sections. Part 1 includes data descriptives, Part 2 tests main effects based on the hypothesized model, Part 3 tests moderation effects based on the hypothesized model, and Part 4 provides a preliminary exploration of differences among advertising agency conglomerates.

Part 1. Data Descriptives

Illustrative Examples of Advertising Agencies

To paint a more vivid picture of the variables used in the study, three agencies are described in the following paragraphs. The first agency, Regan Campbell Ward, is described because it epitomizes the hypothesized conceptual model. Next, the sample data was split into a high centrality group and a low centrality group, and one agency was randomly chosen from each group (for a total of 3 agencies). They are Avrett, Free, Ginsberg and Zubi Advertising. Focal descriptive statistics are provided for each of these agencies and the sample in Table 4.1.

To begin with, Regan Campbell Ward, headquartered in New York, epitomizes the hypothesized effects in this study. They are an isolate firm (i.e., in the low centrality condition) that has diversified its services offerings and demonstrated a strong positive change (67%) in revenues from 2001 ($39 million) – 2002 ($65 million). Upon closer examination, it appeared that the agency had been hired by one of the largest U.S. advertisers, Johnson & Johnson, in 2002. Accordingly, their services diversity score

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TABLE 4.1. Sample Advertising Agencies

Location	Sample Mean	Sample Median	Regan Campbell Ward New York, New York	Avrett, Free, Ginsberg New York, New York	Zubi Advertising Coral Gables, Florida
Revenues 2002 (millions)	$1155	$170	$65	$501	$106
Degree Centrality 2002	9.17	10.39	0	21.86	0
Services Diversity 2002	.68	.72	.67	.73	.88

was extremely low in 2001 since they reported 95% of their revenues were generated by one service type. However, in 2002, they reported revenues stemming more evenly from 5 service types. To corroborate, in 2001, they established MedRageous, a medical interactive arm targeting the new interactive services available in the healthcare industry. At the time of this study, they are owned by the Interpublic Group and are now connected to the agency conglomerate network. Interestingly, Regan Campbell Ward positions itself as a specialist in healthcare marketing.

On the other hand, Avrett, Free, and Ginsberg – headquartered in New York – is a highly central agency in 2001 with a normalized degree centrality score of 21.86, while the sample average is 9.17. In 2001, the agency was purchased by Interpublic and underwent massive managerial changes. They handled clients such as Nestle and Pfizer, and indicate a variety of capabilities on their website. They appear to position themselves as a one-stop shop with the ability to offer many different types of services.

Finally, Zubi Advertising Services – headquartered in Coral Gables, Florida – is a low centrality agency reporting a 38.7% increase in revenues from 2001 ($65 million) – 2002 ($106 million). They handle clients such as Ford and Mars, and are known as specialists in Hispanic marketing. They pride themselves on being the largest independently owned agency in the U.S. These three firms typify differing situations and strategy choices in their services offerings.

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Descriptive Statistics & ANOVA

Descriptive statistics are provided in table 4.2 and a correlation matrix of the variables is provided in table 4.3. In table 4.2 , means, minimum scores and maximum scores have been provided for all agencies *(n=112)*, as well as for agencies in the high centrality condition *(n=59)* and for agencies in the low centrality condition *(n=53)*. With the exception of Annual Revenues reported from the years 2002, 2003, and 2004, all other scores are from the year 2002. As seen, results from ANOVA are shown for measures in which there are statistically different means between the two groups. The statistically significant measures are Services diversity, Service Count, Degree Centrality, Client Diversity in Media Consumption, and Client Count. Only the variable Revenues (in all three years: 2002, 2003, 2004) has not demonstrated statistical significance.

As seen in table 4.2, it is worthy to note that, on average, both services diversity (.727) and services count (8.371) scores are higher for the low group than for the high group (.630 and 7.486, respectively) and for the entire sample (.678 and 7.929, respectively). Although the average score for client diversity in media consumption is higher for the low group (.670) than for the high group (.543) and the entire sample (.600), number of clients is lowest for the low group (2.30) when compared to the high group (3.246) and entire sample (2.817).

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Part 2. *Identifying Main Effects in the Theoretical Model*

To test the focal hypothesis (Hypothesis 3) and its proposed moderation effect, it was earlier mentioned that it is first necessary to determine whether main effects based on network position and services diversity exist in the model (see Chapter 3 – Design, Figure 3.2). Results are reported in Table 4.4. As can be seen, across the three years of data there is no support for Hypothesis 1 which hypothesized a direct effect of services diversity on the breadth of client portfolios (.06, .19, .00, all N.S., for 2002, 2003 and 2004 respectively). However, there is strong support for Hypothesis 2 which hypothesized a direct effect of the breadth of client portfolios on performance (.51, .25, .43, all $p<0.05$ for 2002, 2003, and 2004 respectively). An additional path that is important for the model is network position $\rightarrow$ services diversity, which shows a negative coefficient for all 3 years (-.22, -.21, and -.22, all $p<0.05$). This inverse relationship shows support for the moderation effect in Hypothesis 3 which is not formally tested in this model (but will be tested in a subsequent section). Also important is the path network position $\rightarrow$ performance (.32, .34, .27, all $p<0.05$, in years 2002, 2003, and 2004, respectively).

It is important to note that, based on the theoretical model, paths that are significant remain significant over the three year time period, while paths that are not significant remain not significant over the three year time period. However, it is interesting to note the minor variation in the strength of the path coefficients over

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Table 4.2. Descriptive Statistics

		All *n=112*	High Group *n=59*	Low Group *n=43*
Services Diversity 2002 **	Mean	0.678	0.639	0.727
	Min	0.000	0.000	.447
	Max	0.896	0.896	0.875
Services Count 2002 **	Mean	7.929	7.486	8.371
	Min	1.000	1.000	1.000
	Max	18.000	18.000	16.000
Degree Centrality 2002 **	Mean	9.16	16.710	.912
	Min	0.000	10.394	0.000
	Max	21.864	21.864	5.376
Client Diversity in Media Consumption 2002 *	Mean	.600	.543	.670
	Min	0.000	0.000	0.000
	Max	.873	.857	.873
Client Count 2002 **	Mean	2.817	3.246	2.300
	Min	1.000	1.000	1.000
	Max	25.000	25.000	21.000
Revenues 2002 (rounded to the nearest million)	Mean	1156	1700	550
	Min	4	10	4
	Max	26000	26000	10101
Revenues 2003 (rounded to the nearest million)	Mean	1108	1362	814
	Min	1	3	1
	Max	30000	19100	30000
Revenues 2004 (rounded to the nearest million)	Mean	1000	1989	1536
	Min	1	2	1
	Max	26000	26000	1850

* Statistically Significant Group Means (High versus Low) as obtained by ANOVA (p<.05)
** Statistically Significant Group Means (High versus Low) as obtained by ANOVA (p<.01)

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Table 4.3. Correlation Matrix

		Rev02 (log)	Rev03 (log)	Rev 04 (log)	Services Diversity	Services Count	Degree Cent	Client Diversity of Media Consumption	Client Count
Revenues 02	*All*	1.000							
(log)	*High*	1.000							
	Low	1.000							
Revenues 03	*All*	.699**	1.000						
(log)	*High*	.627**	1.000						
	Low	.679**	1.000						
Revenues 04	*All*	.672**	.398**	1.000					
(log)	*High*	.872**	.452**	1.000					
	Low	.272	.173	1.000					
Services	*All*	.002	.020	.051	1.000				
Diversity	*High*	.346*	.228	.298	1.000				
	Low	-.150	-.065	.153	1.000				
Services	*All*	.057	.025	.064	.536**	1.000			
Count	*High*	.231	.151	.358	.572**	1.000			
	Low	.019	.006	.140	.507**	1.000			
Degree	*All*	.386**	.331**	.394**	-.291*	-.131	1.000		
Centrality	*High*	n/a	n/a	n/a	n/a	n/a	1.000		
	Low	n/a	n/a	n/a	n/a	n/a	1.000		
Client Div of	*All*	.010	.118	-.074	.228	.295*	-.201*	1.000	
Media	*High*	.057	.247	.186	.120	.266	-.002	1.000	
Consumption	*Low*	-.073	.035	-.141	.285	.267	-.248	1.000	
Client	*All*	.575**	.296**	.553**	.097	.008	.151	.299**	1.000
Count	*High*	.129	.359**	.703**	.160	.061	.095	.386**	1.000
	Low	.475**	.109	.310	.046	-.061	.126	.180	1.000

* Significant at the 0.05 level (2-tailed), ** Significant at the 0.01 level (2-tailed). Unless indicated, data is from 2002.

time. For example, the relationship between breadth of client portfolio and performance begins strong in 2002 (.51, p<0.05), then substantially weakens in 2003 (.25, p<0.05), but then increases again in 2004 (.43, p<0.05). In the opposite direction, the relationship between network position and performance gets stronger from 2002 (.32, p<0.05) to 2003 (.34, p<0.05), but weakens in 2004 (.27, p<0.05). On the other hand, the relationship between network position and services diversity remains relatively stable (approximately -.22, p<0.05).

In the measurement model, the measure of services diversity is stronger (.96, .92, .95) than the measure of services count (.76, .82, .78) across all three years. In the breadth of client portfolio block, client count is a stronger measure (1.00, .82, .96) than client diversity in media consumption (.27 N.S., .80, .03 N.S.). Explanatory power is strongest in the 2002 model (R^2=.41), weakest in the 2003 model (R^2=.17), and moderate in the 2004 model (R^2=.30).

Part 3: Test of Moderation Effects

The sample of 112 advertising agencies is split at the median (10.39) of the proposed moderating variable, degree centrality. This divides the sample into two groups: high centrality ($n=59$) and low centrality ($n=53$). The results are shown in Table 4.5 for both the high and low groups, across the three years 2002-2004.

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First, there is mixed support for Hypothesis 3 which posits a moderating effect of network position on the relationship between services diversity and breadth in client portfolio. In the high group, the path is not significant (.10, .14, and .09, all N.S., for 2002, 2003, 2004 respectively). In the low group, however, there is no apparent effect in 2002 (-.09 N.S.), but an effects appears in successive years, 2003 and 2004 (.31, p<0.05).

Next, there is also mixed support for a moderating effect of network position on the relationship between breadth in client portfolio and performance. In the high group, the path is strong across all three years (.58, .38, and .55, all p<0.05). However, in the low group, the effect of breadth in client portfolio on performance is first significant in 2002 (.48, p<0.05), but drops substantially in 2003 (.05 N.S.) and even becomes negative – although not significant - in 2004 (-.20 N.S.).

The path services diversity → performance is not significant for either group in 2002 or 2003 (for the high group, .13 N.S. in 2002 and .07 N.S. in 2003, for the low group, .00 N.S. in 2002 and -.04 N.S. in 2003). But in 2004, the effect of services diversity on performance becomes significant only for the low group (.15, p<0.05), while it remains not significant for the high group (.13 N.S.)

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Table 4.4 Partial Least Squares Results for main effects in structural model

Theoretical Model			Annual Revenues in Year		
		Path Estimates	2002	2003	2004
	H1	Services Diversity → Breadth of CP	.06	.19	.00
	H2	Breadth of CP → Performance	.51*	.25*	.43*
		Services Diversity → Performance	.07	.05	.11
		Network Position → Services Diversity	-.22*	-.21*	-.22*
		Network Position → Breadth of CP	.17	.01	.21
		Network Position → Performance	.32*	.34*	.27*
Measurement Model			Annual Revenues in Year		
		Measure Weights	2002	2003	2004
Services Diversity		Services diversity	.96	.92	.95
		Services Count	.76	.82	.78
Breadth of Client Portfolio		Client Diversity in Media Consumption	.27	.80	.03
		Client Count	1.00	.82	.96
Network Position		Degree Centrality	1.00	1.00	1.00
Performance		Revenues (log)	1.00	1.00	1.00
Explanatory Power					
		Performance	.41	.17	.30
		Clientele			
		Services Diversity			
		Network Position	.00		.00

*p <0.05

Interestingly, results based on H3 demonstrate a pattern over the three year time period. For both the high and the low groups, breadth in client portfolio is important in 2002 (.58, p<0.05 and .48, p<0.05). Then in 2003 and 2004, Hypothesis 3 is significant for only the low group (.31, p<0.05, in both years). Meanwhile, a moderating effect of network position on the relationship between breadth in client portfolio and performance is significant for only the high group in 2003 and 2004 (.38, p<0.05 in 2003 and .55, p<0.05 in 2004). This suggests that the breadth of client portfolio drives performance for all agencies in 2002, but remains significant only for agencies in the high centrality condition in 2003 and 2004.

Turning to the measurement model in Table 4.5, the services diversity measure (weights ranging from .86 - .89) and the services count measure (weights ranging from .86 - .91) are equally important for both groups across all three years. However, looking across the measure weights for breadth in client portfolio, no clear pattern emerges. For the high group, client diversity is important but its importance waivers across the three years (.61 in 2002, .82 in 2003, and .59 in 2004). For the low group, client diversity is less important at first but becomes more important in subsequent years (-0.10 in 2002, 1.00 in 2003, and .98 in 2004). On the other hand, for the high group, client count is important but its importance waivers across the three years (.97 in 2002, .85 in 2003, and .98 in 2004). For the low group, client count is more important at first but becomes less important in subsequent years (.96 in 2002, .21 in 2003, and -0.02 in 2004).

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Table 4.5. Partial Least Squares results for Moderation Effect

Theoretical Model: Path Estimates

Paths	Revenues in 2002		Revenues in 2003		Revenues in 2004	
	High	Low	High	Low	High	Low
(H1) Services Diversity -> Breadth in Client Portfolio	0.10	-0.09	0.14	.31*	0.09	.31*
(H2) Breadth in Client Portfolio --> Performance	.58*	.48*	.38*	0.05	.55*	-0.20
Services Diversity --> Performance	0.13	0.00	0.07	-0.04	0.13	.15*

Measurement Model: Measure Weights

Variables	Measures	Revenues in 2002		Revenues in 2003		Revenues in 2004	
		High	Low	High	Low	High	Low
Services Diversity	Services Diversity 2002	.90	.87	.86	0.88	.88	.87
	Services Count 2002	.87	.87	.91	0.86	.89	.86
Breadth in Client Portfolio	Client Diversity in Media Consumption 2002	.61	-0.10	.82	1.00	.59	.98
	Client Count 2002	.97	.96	.85	0.21	.98	-0.02
Performance	Revenues	1.00	1.00	1.00	1.00	1.00	1.00

Explanatory Power

Variables	Revenues in 2002		Revenues in 2003		Revenues in 2004	
	High	Low	High	Low	High	Low
Performance	0.38	0.23	0.16	0.00	0.33	0.04
Breadth in Client Portfolio 2002						
Services Diversity 2002	0.00	0.00	0.00	0.00	0.00	0.00

*$p < 0.05$

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Explanatory power of the model is stronger for the high group across all three years (R^2=.38, .16, and .33, for 2002, 2003, and 2004 respectively). Explanatory power varies for the low group across the three years (R^2=.23, .00, and .04, for 2002, 2003, and 2004 respectively).

The variation in results across the three years makes it difficult to identify the presence of moderation effects. For this reason, results obtained with PLS are triangulated with stepwise multiple regression. Because PLS handles multiple measures while multiple regression does not, the independent measures (services diversity and service count) are separated and tested separately for the regression analysis. Thus, for each year, four models are estimated. Two of the models test the interaction effect between network position and services diversity, and two of the models test the interaction effect between network position and services count. The first "interaction only" model for each effect tests only the significance of the interaction effect, while the second "full" model for each effect tests the significance of the interaction effect with the other key measure that has shown to be significant for the initial main effects model from part 1, client count. Results are reported in Table 4.6.

Degree centrality is consistently significant in all estimations, with standardized beta coefficients ranging from .28 to .39, p<0.00. Services diversity is generally not significant except in the interaction only model for 2004 (.09, p<0.05),

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Table 4.6. Multiple regression results for Moderation Effect

Moderation Effect (Network Position*Services Diversity)

	Rev02 (log)		Rev03 (log)		Rev04 (log)	
Degree Centrality 2002	.39**	.31**	.34**	.30**	.36**	.29**
Services Diversity 2002	0.01	-0.03	0.05	0.03	.09*	0.07
Deg*SD 2002	.15**	0.14	.08*	0.07	0.03	0.03
Client Count 2002	--	.51**	--	.24**	--	.40**
R2	**0.17**	**0.40**	**0.11**	**0.14**	**0.12**	**0.25**

Moderation Effect (Network Position*Services Count)

	Rev02 (log)		Rev03 (log)		Rev04 (log)	
Degree Centrality 2002	.39**	.31**	.33**	.29**	.34**	.28**
Services Count 2002	.07*	0.06	0.05	0.05	.07*	0.06
Deg*SVCT 2002	.08*	0.07	.07*	0.06	0.01	0.01
Client Count 2002	--	.51**	--	.25**	--	.41**
R2	**0.16**	**0.39**	**0.11**	**0.14**	**0.11**	**0.25**

*$p<.05$, **$p<.00$, Standardized Betas & Adjusted r2

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however, the significance disappears when the client count measure is added to the full model (.40, p<0.00). Services Count is significant in the interaction only model for both 2002 and 2004 (.07, p<0.05 in both years), but again disappears when the client count measure is added to the full model (.51, p<0.00 and .41, p<0.00).

While the interaction term deg*svcdiv is significant in both 2002 and 2003 for the interaction only model (.15, p<0.00 and .08, p<0.00), but again significance disappears after the client count measure is added to the full model (.51, p<0.00 and .24, p<0.00). On the same note, the interaction term deg*svct is significant but weak in both 2002 and 2003 for the interaction only model (.08, p<0.05 and .07, p<0.05), but disappears after the client count measure is added (.51, p<0.00 and .25, p<0.00). Client count, overall, is consistently significant across the three years, with values ranging from .24 to .51, all p<0.00. Explanatory power is strongest in the full model across all three years, and is similar for models using the two independent variable measures ($R^2 = \sim.40$, $R^2 = .14$, and $R^2 = .25$ for 2002, 2003 and 2004).

The results demonstrate that only Hypothesis 2 (breadth of client portfolio → performance) was supported. Neither Hypothesis 1 (services diversity → breadth of client portfolio) nor Hypothesis 3 (network position*services diversity → breadth of client portfolio) were supported. Additionally, network position was shown to have an effect on performance and on services diversity.

Part 4: Preliminary Exploration of Differences among Advertising Agency Conglomerates

Because network position effects (i.e., centrality) were significant and strong throughout the analysis, it is insightful to provide preliminary, descriptive information about the effects of being connected to an advertising conglomeration. Research documenting the effects of centrality on performance is wide and convergent: generally speaking, a more highly central actor is often more successful (Freeman 1979, Wasserman and Faust 1994). Centrality, in the context of advertising agencies, is discussed in more detail below.

Structuration

First, longitudinal effects of and on centrality are discussed. Centrality, as a measurable structural attribute of a network, is well-established (Freeman 1979). In this dissertation, centrality refers to the position of an advertising agency in a network such that the relationships in the network exist when agencies are owned by the same conglomerate. So, agencies that are highly central are connected to many other agencies by conglomeration while agencies that are not highly central are not connected to other agencies by conglomeration. This is important in the context of this dissertation because it appears that conglomeration affects individual agency performance, and that – in the opposite direction -- individual agency performance affects conglomeration. Giddens (1979) articulates structuration as the process by which individual actors affect the larger macro-structure (or network) and vice versa.

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Giddens argues that *duality* is inherent in network processes, as the larger network provides rules and resources that enable individual action at the same time that individual action creates the structure. To examine duality between advertising agencies and the larger conglomerate structures, a correlation matrix relating centrality and revenues is generated in Table 4.7. Revenues in 2002 are significantly correlated with Centrality in the years 2001, 2002, 2003 and 2004. Furthermore, correlation coefficients in the year prior (2001) and the year after (2003) are higher than other years. Based on the entire sample ($n=112$), it appears that a causal chain exists as: Centrality (2001) → Revenues (2002) → Centrality (2003).

Differences among Conglomerates

Most advertising agency managers are faced not only with the decision of whether or not to join a conglomerate, but also with the decision of which conglomerate to join. For this reason, it is important to understand differences among agency conglomerates by exploring characteristics other than size. Table 4.8 provides descriptive statistics organized by the 6 largest advertising conglomerations worldwide, as well as the group of isolates included in the sample. Table 4.9 describes the conglomerate size distribution for the set of agencies used to calculate network position.

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Table 4.7. Correlation Matrix:
Centrality & Revenues

	Revenues		$n=112$
	2002	2003	2004
2001	0.257**	0.175	0.138
2002	0.234**	0.143	0.126
2003	0.260**	0.176	0.142
2004	0.191*	0.069	0.153

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A preliminary examination of these groups reveals that they appear to be different with respect to variables considered in this study. Table 4.8 shows that Dentsu has the highest average services diversity (.733) when compared to the other 5 conglomerates, while Havas has the lowest average services diversity (.577). The group of isolates has high average services diversity (.727). On the services count variable, again Dentsu has the highest number (10.25), while Omnicom has the lowest (6.2), and the isolates have a high number (8.371) . European companies, WPP and Publicis, have the highest average client diversity in media expenditures (.583 and .588 respectively). Meanwhile, Dentsu has the lowest average in client diversity of media expenditures (.462) despite that the fact that they were the most diverse. The group of isolates, on the other hand, has a higher average in client diversity in media expenditures (.670). Omnicom reports the highest average revenues that are US based ($1.8 billion dollars), while Dentsu reports the least ($95 million). The group of isolates reports moderate average revenue of $550 million.

Meanwhile, Table 4.9 reports that the conglomerate Interpublic has the most agencies in the set of agencies used to calculate network position (n=62), while Maxxcom has the least number of agencies in the set (n=9). On the other hand, Omnicom has the highest 2002 U.S. revenues figure ($4284 million) while Dentsu has the lowest 2002 U.S. revenues figure ($44.5 million). There are 28 isolates in the set of agencies used to calculate network position scores and a total of 285 agencies.

Table 4.8. Descriptive Statistics of Isolate Agencies and 6 Largest Advertising Organizations as represented in Study Sample*		WPP	Interpublic	Omnicom	Publicis	Dentsu	Havas	Isolates
Worldwide Rank*		1	2	3	4	5	6	n/a
Number of firms in sample owned by conglomerate*		5	14	14	13	5	4	n/a
Headquarters Location*		Great Britain	U.S.A.	U.S.A.	France	Japan	U.S.A.	n/a
Services Diversity	Mean	DNR	0.640	0.616	0.639	0.733	0.577	0.727
Services Count	Mean	DNR	8.900	6.222	7.250	10.250	6.500	8.371
Client Diversity of media expenditures	Mean	0.583	0.575	0.453	0.588	0.462	0.552	0.670
Client Count	Mean	1.800	3.286	2.786	3.692	1.600	2.500	2.298
US Revenues 2002 (REV) - $ in millions	Mean	518	1547	1833	1689	95	432	550

*DNR = Did not report data, * =Based on Worldwide Revenues as reported in Advertising Age, Agency Report 2002*

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Table 4.9 Conglomerate size distribution for the set of agencies used to calculate network position **

	Size**	2002 Revenues*
Omnicom	56	4284.6
Interpublic	62	3491.1
WPP	34	2448.2
Publicis	30	1179.9
Havas	16	804.5
Cordiant Communications Group	8	788.5
Grey Global Group	8	520.5
Maxxcom	9	111.9
Dentsu	34	44.5
Isolates	28	n/a
Total	**285**	

* = U.S. Revenues in millions

** = Based on the set of agencies used to calculate network position scores. Note that these figures are based only on agencies used to calculate Network Position from the 2003 Agency Report (which reports 2002 data). Figures for the study sample (n=112) used to calculate the remainder of variables in the study may differ; for a complete discussion, see Chapter 3 – Design.

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Collaboration among Advertising Agencies

It should be noted that this industry is characterized by collaboration, especially among firms in conglomerate networks. In order to provide evidence of this collaboration, excerpts from a newsletter published by the Interpublic group, the second largest advertising company in the world, is included in the following pages. The company issues a periodic newsletter with a section titled "The Amoeba[1]" (Mullarkey 2006). The Amoeba sub-heading reads, *"The Amoeba describes how Interpublic companies collaborate to form custom solutions to fit clients' needs."* Furthermore, it provides anecdotal stories of collaboration among Interpublic agencies. Some of these stories are:

With only a week's notice, Jack Morton Worldwide produced a video for Deutsch's Johnson & Johnson Tylenol client for an internal meeting. Within 24 hours, Jack Morton generated outreach to obtain footage and images, wrote a script and moved into production.

Intel has engaged Jack Morton Worldwide and MRM to enhance the strategy of their global channel program. Jack Morton will assist Intel in evolving the communications with global channel partners.

CA (formerly Computer Associates) launched a global cross-channel awareness effort, drawing on a host of Interpublic agencies including: Draft, Jack Morton,

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[1] An amoeba is a single-celled organism that has the ability to change shape.

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Octagon, ID Media, Initiative, Insidedge, R/GA and Weber Shandwick. Work from all

agencies carried the tagline: "Remember when technology had the ability to amaze

you." The campaign incorporated print, online, out-of-home, a custom publication

and a World Golf Championship sponsorship. It also included a direct mail effort

using video iPods with a clip of CA CEO, John Swainson, talking about the company's

vision.

Chapter 5. Discussion

Generally speaking, the findings underscore the importance of client and

conglomerate networks as drivers of firm performance. In this dissertation, networks

among three kinds of firms were studied. These firms were advertising agencies, their

clients, and media companies. The motivation for this study was to provide theoretical

insights regarding the relative importance of services diversity, network position (i.e.,

centrality), and breadth of the client portfolio with respect to revenues, and to provide

strategic advice for managers, particularly advertising agency managers, who are

faced with deciding whether their firms should offer diverse services.

In essence, the issue of technology management was positioned within a

broader, marketing strategy context because recent technological innovations have

been extremely pertinent to marketing, advertising and strategy theory (Shugan 2004).

Yet, prior studies have focused specifically on the management of technology while

overlooking other, possibly competing, marketing and strategy variables (Bakos and

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Brynjolfsson 1999). This dissertation seeks to extend those studies by focusing on constructs related to these effects.

Relative Importance of Services Diversity

The issue of generalizing or specializing in particular services is well studied in marketing, particularly in the areas of competitive advantage and resource-based advantage (Barney 1991, Srivastava Fahey Christensen 2001, Day and Wensley 1994, Wernerfelt 1984). It has been argued that firms should consider whether they can build capabilities by becoming more proficient at offering particular services in order to generate sustainable competitive advantages. In making the decision about capabilities, managers must decide whether or not to bundle their service offerings to clients (Bakos and Brynjolfsson 1999). In the same vein, Shugan (2003) has discussed the notion of "telecommunications bundles" as a way to manage the increasing number and diversity of media. Other management studies focus on the nuances of product/services diversity, making suggestions with regard to bundling under varying conditions (Rust and Oliver 1994, Brynjolfsson, Hu and Smith 2003, Bakos and Brynjolfsson 1999).

The results imply, however, that in the context of advertising services, services diversity is not a strong driver of performance or of breadth in the client portfolio. The findings imply, instead, that performance is more strongly driven by network position and by breadth in the client portfolio. Corroborating the work of Stremersch,

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Tellis, Franses and Binken (2007), revenues appear to be more sensitive to changes in the client portfolio than to changes in the services menu, which suggests that at advertising agencies, managerial focus is better placed on the client portfolio than the services menu.

Relative Importance of Client Portfolio

This is best represented by the lack of support for a hypothesized mediating effect based on the client portfolio. That is, based on H1 & H2, it was posited that increased services diversity would lead to increased breadth of the client portfolio which, in turn, would lead to increased revenues. This mediating effect essentially tests the industry motto, "Build a better mousetrap and the world will beat a path to your door" because agencies can "build better mousetraps" by diversifying their services menus. As the motto suggests, this would attract the "world" of would-be clients thereby driving revenues. However, the results suggest that services diversity does not affect breadth of the client portfolio, although breadth of the client portfolio does impact agency performance. This implies that Breadth of the Client Portfolio is an exogenous variable that affects revenues on its own. In a similar way, Stremersch, Tellis, Franses and Binken (2007) find that technological hardware sales precedes software availability in the context of new product growth and further report that the reverse almost never happens in their cross market analysis. They argue that the most credible reason for this is that consumers decide to purchase hardware independently

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of the quantity of software available. Similarly, clients may decide to consume media independently of the services diversity available from advertising agencies.

Although not surprising, the effect of breadth in the client portfolio on performance was salient throughout the analysis. Not only does this underscore the importance of sales and sales management in the marketing function, it also suggests that agencies should "get the client" first and then service the client accordingly. This corroborates the previously mentioned results regarding the less critical role of services diversity in this study, which implies that it is more important to focus outwards toward clients, rather than inward on capabilities and bundling. These findings are consistent with the adage, "The customer always comes first."

Relative Importance of Network Position

Network position, in this study, was hypothesized to have a moderating role in the study. The results do not support this view. In the context of the data used in this study, it appears that network position plays a different role for advertising agencies. The results demonstrate that network position has separate main effects on services diversity and performance. Each of these effects is discussed below.

First, network position was shown to have a direct positive effect on revenues. As Tharp and Jeong (2001, p.111) articulate, the network provides individual agencies with "brand-planning skills, an understanding of relevant consumers, decision aids

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that facilitate decision processes, information systems that maximize experiences and communications, and an ability to bridge cultures." This statement highlights the fact that the network provides many advantages for individual agencies, but it is difficult to determine quantitatively how these network-based advantages affect revenues based on this dissertation.

However, the *Amoeba* newsletter shown in Part 4 of the results section suggests that a possible way that being connected to conglomerates helps individual agencies is by making it easier to collaborate with other agencies. As demonstrated in the story excerpts in Part 4, advertising agencies utilize the capabilities of other agencies in the conglomerate. This is a phenomenon similar to other motivations for interorganizational relationships to occur, as studied in marketing in the branding literature. Effects of being formally affiliated with other firms have been implicitly studied in areas such as co-branding and ingredient branding, for example, where brand equity for products or services of partner firms increases the value of products or services of the focal firm (Shocker, Srivastava, and Ruekert 1994, Kotler and Pfoertsch 2006). In these situations, firms capitalize on the capabilities of other firms which, in the case of branding, adds to brand equity. Similarly, advertising agencies capitalize on the capabilities of other agencies in the conglomerate, thereby building market-based assets (Frels, Shervani, and Srivastava, 1989, Srivastava et al. 2003). Market-based assets are built through firm interaction, which includes dialogue, transactional exchange, and collaboration (Turnbull, Ford and Cunningham 1996,

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Araujo and Easton 1995, Gadde and Mattsson 1987, Gadden, Huemer and Hakansson 2003). Advertising agencies build market-based assets not only by joining conglomerates but also by collaborating and interacting with other agencies in the conglomerate. The resulting market-based assets may explain how network position affects performance.

The notion of market-based assets also helps to explain the inverse relationship found between network position and services diversity. Specifically, the results suggested that increased network position leads to decreased services diversity. Structuration theory (Giddens 1979) can shed some light on why this occurs. Gidden articulates that structuration is the process by which a larger macrostructure affects microlevel activity and, in the opposite direction, the process by which microlevel activity affects the larger macrostructure. Defined as rules and resources, the structure enables action at the same time that action creates the structure. As described in the previous paragraph, collaborative interaction occurs among agencies in a conglomerate. Thus, the conglomerate allows the individual agency to service its clients needs via collaboration at the same time that the individual agency allows the conglomerate increased exchange also via collaboration. Both the conglomerate and the agency provide services and also reap the rewards of providing services.

This process underscores the key element of *dualism* in structuration theory and can be better understood when the resources element of structure is emphasized in

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the context of this study. For individual advertising agencies, it appears that the larger macrostructure (i.e., the conglomeration) may be providing resources such as infrastructural support, extra personnel, or potential partners with varying capabilities. This makes services diversity less important for all firms rather than for particular firms (such as those in the low centrality condition, as posited in Hypothesis 3). Although not examined in this dissertation, in the opposite direction, the individual advertising agencies may provide the larger macrostructure with, for example, additional clients (which translates into incremental revenue resources), its own existing capabilities, or geographical reach. Over time, the two co-evolve as they influence each other through the process of structuration. As Grabher (2001) describes, it was inevitably the nature of labor that transformed the advertising industry in the 1980's because the required "work" necessitated different organizing and collaboration principles. The resources, in structuration terms, needed to do the work were made available through conglomeration.

A Triadic Perspective of Business-to-business Strategy in the Context of Advertising Services

Advertising agencies generally are in a peculiar situation since they are positioned between clients (as their customers) and media companies (as their suppliers). Because of ensuing trends in conglomeration, their position with respect to other advertising agencies is suggested to be of relevance, as implied by the significance of the network position parameter. Not uncommon, this difficult position

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among competing clients, suppliers, and partners is also tolerated by firms such as, for example, retailers, service providers, manufacturing component dealers, or financial advisors.

Essentially, firms in this position have three interorganizational portfolios (clients, partners, and suppliers) to manage, which involves identifying and managing relationship and partner characteristics such that the set of relationships can serve the firm in different ways (Wagner and Johnson 2004, Gadde, Huemer, and Hakansson 2003). In marketing, each of these three portfolios has been shown to influence the others. As outlined in chapter 2, the approach of examining relatedness among three or more firms is becoming popularized in marketing as a Triadic Perspective (Wuyts et al. 2004).

In its initial conceptualization in the marketing literature, the triad consisted of vendor-buyer-supplier relationships (Wuyts et al. 2004) which provided the basis for this examination. To examine triadic effects, Wuyts and colleagues utilized a mail survey which contained a conjoint experiment imposing a buyer-vendor-supplier situation on the respondent. However, this dissertation takes a different approach because it is based empirically on secondary data recording past firm behaviors rather than primary data gathered from survey administration. This distinction is important because a goal of the study was to empirically assess the triadic perspective as proposed by Wuyts and colleagues. Although the results here also suggest that triads

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are indeed important, the triad which the data suggests is important is not the vendor(agencies) – buyer (clients) – supplier (media) triad as originally proposed. Rather, the triad which appears to drive performance in the advertising industry is the vendor-buyer-*partner* triad.

An Empirical Understanding of the Two-Flow Market in Advertising

Overall, these results are important because they support and offer empirical validation of a Two-Flow Market in advertising (Dukes and Gal-Or 2003; Liu, Putler, and Weinberg 2004, Shugan 2004). As shown in Figure 6.1, advertising agencies face a Two-Flow Market because they sell air to advertisers while selling messages, products and services to eyeballs (those of consumers). Although researchers in advertising have empirically assessed a broad realm of effects related to the market for eyeballs, the market for air has been generally overlooked in the *marketing* literature. Accordingly, the conceptual model proposed in Chapter 2 and tested in this dissertation originated mostly from advertising theory. However, the results support neither Hypothesis 1 (Services diversity → Breadth of Clients) nor Hypothesis 3 (Network position*Services diversity → Performance). Furthermore, there is support for Hypothesis 2 (Breadth of Clients → Performance) but not as the posited mediator. The actual results are supported by and align with much of the extant *strategy* and

Air / Space

Strategy-related theories

Clients   Agencies   Media

Advertising-related theories
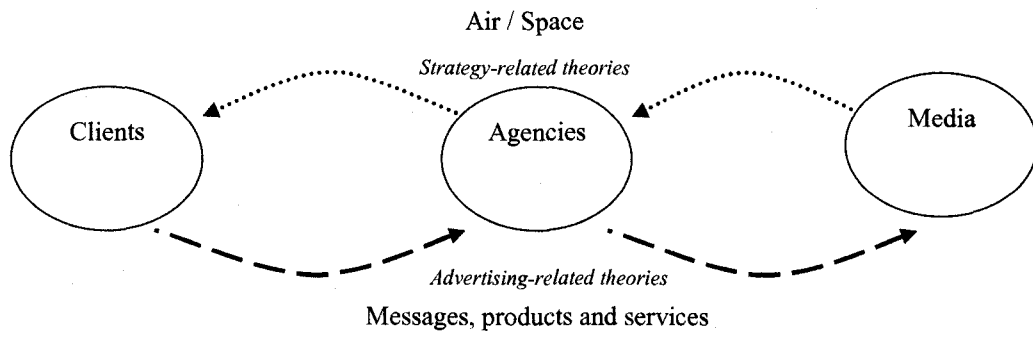
Messages, products and services

Figure 6.1. Advertising agencies face a Two-Flow market selling air to advertisers, and messages, products and services to eyeballs (those of consumers)

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networks literature. This suggests that perhaps there are different issues and forces confronting firms in the advertising industry than in other marketing contexts.

An opportunity to shed light on the Two-Flow advertising market exists for marketing academicians but has been largely taken for granted. Because firms across industries are increasingly utilizing new media vehicles, the ability of mass media communications to deliver advertising messages, as well as products and services, has driven advertising theory to the forefront of understanding how to maximize these changes. Still, discrepancies exist when theories originally intended for the eyeball market are applied to the air market. For example, while the advertising literature advises firms to diversify and coordinate media decisions using the Integrated Marketing Communications model (Belch and Belch 1995), results here suggest that media diversity may not be so important in driving advertising agency performance. It is hopeful that this dissertation will provide a starting point for understanding the nature of this Two Flow Market.

Chapter 6. Limitations and Future Directions

A major constraint in this study was the issue of data scarcity. An unforeseen challenge, the (un)availability of data affected sample size, as described in Chapter 3. Stremersch et al. (2007) conduct a similar study using archival data and also find data scarcity to be an issue. It should be noted that *Advertising Age* reports that some top agency executives would not provide data for the first time in the year 2002 because of

changes in 2002 regulations (Advertising Age 2003). Additionally, software (SmartPLS) used to estimate the Partial Least Squares model was limited in its scope of handling missing data. In particular, Smart PLS replaced missing values with the means of their respective variables. To address this shortcoming, the results were triangulated using multiple regression.

Another constraint was the lack of data regarding agency costs. It was originally expected that number of employees would be used as a proxy measure for agency costs. However, very few agencies in the sample reported this number, and, as a result, a cost variable could not be included in the study.

Another limitation of the study is the generalizability of the results to firms other than advertising agencies, especially product and manufacturing firms. However, as identified earlier, other firms such as retailers, service providers, manufacturing component dealers, or financial advisors are faced with similar scenarios in which they must manage suppliers, buyers and partners simultaneously. Essentially, firms in this position have three interorganizational portfolios (customers, partners, and suppliers) to manage also, and cross-industry studies should be conducted to determine whether the findings of this dissertation are consistent across various settings.

Also, managers are neither asked nor surveyed about their strategic decisions or the circumstances surrounding the decisions. Rather, it is assumed from past firm behaviors that firms seek to generate revenues and make strategic decisions accordingly. As Hal Varian, a famous Economics professor at Berkeley, states, "If economic agents are making choices to maximize something, then we can get an idea of what is being optimized by looking at agents' choices." A major assumption made in this research is that clients do not have the capabilities of utilizing media vehicles without the advertising agencies. Furthermore, there is an inherent sampling bias due to client data stemming from the "100 Leading National Advertisers Report". Finally, the reliability of the data is not controlled by the researcher and is dictated by the accuracy and precision of the data sources.

Future Research Directions

The next logical step in this research area is to examine the advertising conglomerations using an analogous research design. Because the results demonstrate that network position is important in driving performance, it would be useful to examine the clusters of agencies to determine what drives performance at the conglomerate level.

Future studies should also consider different measures of agency performance including profitability. Because the issue of providing services diversity involves an aspect of increasing costs (in order to provide diverse services), it would be useful to

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use a dependent variable which captures both revenues and costs. This would provide an information evaluation of agency performance.

Longitudinal changes in the industry are especially appealing and can be assessed using methods and software such as Simulation Investigation of Empirical Network Analysis (SIENA), Random Exponential Graph modeling, or Nonlinear Time Series Modeling. Also, extending this study to the international level could be done by looking at the advertising agency's country of ownership and the core countries which dominate the agency's business. These variables might moderate the effects found in the present study.

An area for future research is to segment the data by media vehicle to analyze which agencies and clients are competing in those particular media markets. This is especially important since internet-related media vehicles were not a prominent feature of the data used in this dissertation. Since this data has become more readily available in recent months, future studies can incorporate these different media vehicles into similar investigations. By doing this, it is possible to calculate flow centrality measures by media market in order to assess how competitive network structures and increasing density might be impacting firm performance. Along the same lines, the existing data can be coded for a triad census to empirically assess the attributes of triads that are driving change in the industry. Including these media vehicles can also be impetus for comparing and contrasting measures of diversity such

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as separation, variety and disparity, and determining how these might affect agency performance.

Another interesting research direction includes examining the effects of conglomeration in advertising and media for the purposes of policy formulation. With high concentration ratios for both segments of the market, it is likely that control of media vehicles and advertising messages is actually limited to a few large firms, rather than many firms as originally intended by the 1996 Federal Telecommunications Act. A study of this sort would highlight long term policy effects based on the 1996 Federal Telecommunications Act.

Finally, it would also be interesting to extend this study to the interpersonal level using the *Advertising Age* data source. This data source lists client company Chief Marketing Officers and Chief Executive Officers, along with agency representatives at crucial times such as when agencies are hired and fired, or when advertising and media strategies change. It would be interesting to examine whether dyadic interpersonal relationships between, for example, two powerful managers can determine the duration or performance of agency-client relationships, or agency-media relationships. It would also be useful to examine the role of talent or creativity awards in determining agency success. Furthermore, because *Advertising Age* also provides in-depth news coverage of the industry's day-to-day workings, it would be useful to utilize grounded theory or other qualitative methods of analyzing these reports.

Chapter 7. Implications

The implications of this research are most pertinent for managers of service firms, in particular advertising agencies, but should also prove useful and insightful for managers across industries. The results can be generalized to other firms such as retailers, service providers, manufacturing component dealers, or financial advisors that are also managing suppliers, buyers and partners simultaneously. Essentially, these firms must manage three interorganizational portfolios (clients, partners, and suppliers) by identifying how and when each of the portfolios might affect firm outcomes – which is a similar situation to that of advertising agencies in the context of this study. Even so, these empirical results are derived in the context of advertising agencies and should be generalized with caution.

The lack of support for an effect of services diversity on performance (as stated in Hypothesis 1) suggests that providing wide arrays of products or services may not be the strongest determinant of advertising agency revenues. This is an important finding because it sheds light on the best way for agency managers to respond to the changing landscape of mass media communications. In short, the data suggest that it is not necessary to make a decision whether or not to specialize in a particular product/service or generalize across several products/services. Instead, it is important to focus on increasing breadth in the client portfolio, whether this is done by adding

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new clients to the client portfolio or by encouraging existing clients to broaden their consumption of services.

To increase breadth in the client portfolio, it is beneficial for advertising agency managers to prioritize their sales efforts. In particular, the results support the inclination of those agencies that emphasize new business development. The strongest predictor of revenues, even in light of the changing media landscape, number of clients in the client portfolio should be increased in order to drive increased revenues. Based on the findings, agency managers are advised to coordinate their client portfolios in such a way that the agency can meet its clientele needs, but still be able to attract and service additional clients. To do this, firms might consider operating more similarly to general contractors, thereby hiring and/or collaborating with other agencies to meet clientele needs. This suggests that hiring other agencies for services not provided by the agency can be done on an "as-needed" basis as dictated by client demands. Also, managers should direct sales people to encourage existing clients to diversify their product/service consumption. In the same way, agencies can hire or partner with other agencies for additional services that the focal agency itself cannot provide.

The results also imply that an agency's position among other advertising agencies in the conglomerate network (i.e., network position) is an important determinant in driving revenues. Furthermore, the data suggest that when agency

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managers decide whether or not to join / sell / begin a conglomerate, it is important to consider the number of agencies in the conglomerate. Because an increased number of agencies in the conglomerate predicts increased revenues, agencies that want to drive increased revenues should join larger conglomerates.

On the other hand, network position was also shown to affect services diversity. In other words, the data suggest that agencies that were more central in the conglomerate network (i.e., were connected to larger conglomerates) had lower scores in services diversity. Combined with the implications described above, this implies that agency managers should consider the inverse relationship between network position and services diversity for two reasons: 1) network position drives revenues while 2) services diversity does not appear to drive revenues. Managers should be aware that choosing to be connected to larger conglomerates predicts both increased revenues and decreased services diversity. The predicted decrease in services diversity could be beneficial for agencies that want to avoid adding additional services to their menu of services; these agencies will find it useful to know that changes in services diversity have not been shown to affect revenues in the context of this study. These implications should dissuade managers from spontaneously jumping on the technological bandwagon to offer services related to new media technologies. Instead, managers should focus on clients and joining conglomerates.

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Chapter 8. Conclusions

This dissertation provides an initial, networks-based empirical inquiry into the evolving advertising and media markets. It tests the relative importance of services diversity amidst other marketing related constructs such as the client portfolio and network position. In this way, this study is related to those studies that have assessed the importance of information goods bundling (Bakos and Brynjolfsson 1999, Shugan 2003), as well as those studies related to understanding the Integrated Marketing Communications model in the context of advertising agencies (Belch and Belch 1995, Schultz and Kitchen 1997). The measure of diversity based on Blau's Index of Heterogeneity was used in a services marketing context to predict whether variety in a firm's service menu affects firm performance. In the context of this dissertation, services diversity was not shown to have an effect on advertising agency performance. Broadly speaking, however, it is difficult to make a definitive conclusion about the importance of services diversity without testing the construct across different industries and examining its effects on profitability.

Because the study focuses on the business-to-business marketing side of the advertising industry, the dissertation provides a starting point for merging two popular streams of literature in marketing: the advertising literature and the business-to-business marketing literature. The lack of support for the hypothesized model emphasizes that future work should be done to better understand how advertising agencies can improve their business-to-business marketing strategies. In light of the

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many changes occurring in the industry, it is imperative for continued work in the area.

The study also shows the importance of structural embeddedness by demonstrating the significance of the client and conglomerate networks in the advertising industry (Granovetter 1985). By showing that both the client portfolio and network position are strong determinants of advertising agency revenues, the results corroborate Granovetter's work because it is shown that, in the context of advertising, exchange is affected by the larger networks in which the exchange takes place. Most important, the study reaffirms the importance of servicing existing clients and attracting new clients, key measures of success for many marketing studies and marketing managers. Indeed, breadth of the client portfolio was shown to be an important factor in driving advertising agency revenues.

Based on these results, it would be beneficial to direct scholarly and managerial attention to those effects that are not firm-specific, but instead are based on industry-wide dynamics. In this way, the triadic perspective advanced by Wuyts and colleagues (2004) is extended by the examination of a triad other than the vendor-buyer-supplier triad. In this dissertation, the vendor-buyer-partner triad proved most salient. Nonetheless, the importance of the triad underscores the need for future studies to broaden the work of this dissertation by examining profitability instead of

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revenues, which would more closely reflect the framework for industry analysis as proposed by Porter's Five Forces of Competition framework (Porter 1979).

Finally, the study provides an empirical bird's eye view of how legislation changes, conglomeration, and technology are affecting advertising agency performance at the turn of the 21st century. As the advertising and media markets continue to evolve, the framework and results of this dissertation are likely to shed light on how firms and policy makers can best respond to these changes.

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APPENDIX – REFERENCES

Abdi (2003), "Partial Least Squares (PLS) Regression" in *Encyclopedia of Social Sciences Research Methods*, Lewis-Beck M., Bryman A., Futing T. (Eds). Thousand Oaks (CA): Sage.

Achrol, R. S., T. Reve, and L. W. Stern (1983), "The Environment of Marketing Channel Dyads - a Framework for Comparative-Analysis," *Journal of Marketing*, 47 (4), 55-67.

Advertising Age (2006), "Interactive Fact Pack 2006," New York, New York: *Advertising Age.*

---- (2006), "100 Leading National Advertisers," New York, New York: *Advertising Age.*

---- (2006), "Annual Agency Report," New York, New York: *Advertising Age.*

---- (2005), "100 Leading National Advertisers," New York, New York: *Advertising Age.*

---- (2005), "Annual Agency Report," New York, New York: *Advertising Age.*

---- (2004), "Annual Agency Report," New York, New York: *Advertising Age.*

---- (2004), "100 Leading National Advertisers," New York, New York: *Advertising Age.*

---- (2003), "Annual Agency Report," New York, New York: *Advertising Age.*

---- (2003), "100 Leading National Advertisers," New York, New York: *Advertising Age.*

---- (2002), "Annual Agency Report," New York, New York: *Advertising Age.*

---- (2002), "100 Leading National Advertisers," New York, New York: *Advertising Age.*

Anthonisse, J. M. (1971), The Rush in a Graph. Amsterdam: Mathematische Centrum.

Araujo, L. and G. Easton (2005), "Investments, Positions and Strategy from a Network Perspective" in Perspectives on Market Networks – Boundaries and New Connections, Andersson, P., Hertz, S. and Sweet, S. (Eds). Stockholm School of Economics: The Economic Research Institute.

Bagozzi, R. P. (1975), "Marketing as Exchange," *Journal of Marketing*, 39 (4), 32-39.

Bakos, U. and E. Brynjolfsson (1999), "Bundling Information Goods: Pricing, Profits, and Efficiency," *Management Science,* 45 (12), 1613-1630.

Barney, J.B., (1991), "Firm Resources and Sustained Competitive Advantage," *Journal of Management,* 17 (1), 99-120.

Bavelas, A. (1948), "A Mathematical Model for Group Structure," *Human Organizations*, 7, 16-30.

Beckman, C. M. and P. R. Haunschild (2002), "Network learning: The effects of partners' heterogeneity of experience on corporate acquisitions," *Administrative Science Quarterly*, 47 (1), 92-124.

Belch, G.E. and M.E. Belch (1995), *Introduction to Advertising and Promotion: An Integrated Marketing Communications Perspective.* Chicago: Irwin, third edition.

Berry, L. (1983), "Relationship Marketing," in *Emerging Perspectives on Services Marketing,* Berry, L., Shostack, G., and Upah, G. (Eds.). Chicago: American Marketing Association, 25-8.

Blau, P. M. (1977), "Macrosociological Theory of Social-Structure," *American Journal of Sociology*, 83 (1), 26-54.

Boyd, H. W., H. J. Claycamp, and C. W. Mcclelland (1970), "Media Models for Industrial Goods Advertiser - Do-It-Yourself Opportunity," *Journal of Marketing*, 34 (2), 23-27.

Borgatti, S. P. (2002), "NetDraw: Graph Visualization Software." Harvard, MA: Analytic Technologies.

----, M.G. Everett, and L.C. Freeman (2002), "Ucinet for Windows: Software for Social Network Analysis." Harvard, MA: Analytic Technologies.

Brynjolfsson, E., Y. Hu, and M. D. Smith (2003), "Consumer surplus in the digital economy: Estimating the value of increased product variety at Online booksellers," *Management Science*, 49 (11), 1580-96.

Burn, J.M., P. Marshall, and M. Wild (1999), "When does virtual have value" in *Doing Business on the Internet: Opportunities and Pitfalls*, Romm, C.T. (Ed). Springer-Verlag, London.

Chin, W., B. Marcolin, and P. Newsted (2003), "A Partial Least Squares Latent Variable Modeling Approach for Measuring Interaction Effects: Results from a Monte Carlo Simulation Study and an Electronic-Mail Emotion/Adoption Study, *Information Systems Research*, 14 (2), 189-199.

Day, G.S. and Wensley, R. (1994), "The capabilities of market driven organizations," *Journal. of Marketing*, Vol. 58 (October 1994), 37-52.

Devaraj, S., M. Fan, and R. Kohli (2002), "Antecedents of B2C channel satisfaction and preference: Validating e-commerce metrics," *Information Systems Research*, 13 (3), 316-33.

Dukes, A. and E. Gal-Or (2003), "Negotiations and exclusivity contracts for advertising," *Marketing Science*, 22 (2), 222-245.

Duncan, T. and J. Ramaprasad (1995), "Standardized Multinational Advertising: The Influencing Factors," *Journal of Advertising*, 24 (3), 55-68.

Durkin, M. and M. Lawlor (2001), "The Implications of the Internet on the Advertising Agency-Client Relationship", *The Service Industries Journal* 21 (2), 175 – 190.

Dwyer, F. R. and S. Oh (1987), "Output Sector Munificence Effects on the Internal Political-Economy of Marketing Channels," *Journal of Marketing Research*, 24 (4), 347-58.

Dwyer, F. R., P. H. Schurr, and S. Oh (1987), "Developing Buyer-Seller Relationships," *Journal of Marketing*, 51 (2), 11-27.

Ensminger, J. (2006), "The Co-evolution of Social Norms and the Market," in Human Sciences and Complexity UC Research Group, Doug White (Ed.). University of California, Irvine.

Falk, R. and N.B. Miller (1992), *A Primer for Soft Modeling*. Akron, Ohio: University of Akron Press.

Fiocca, R. (1982), "Account Portfolio Analysis for Strategy-Development," *Industrial Marketing Management*, 11 (1), 53-62.

Fornell, C. and F. L. Bookstein (1982), "2 Structural Equation Models - Lisrel and Pls Applied to Consumer Exit-Voice Theory," *Journal of Marketing Research*, 19 (4), 440-52.

Freeman, L. C. (1989), "Social Networks and the Structure Experiment," in *Research Methods in Social Network Analysis*, L. C. Freeman, D.R. White and A.K.Romney (Eds). Fairfax, VA: George Mason University Press.

---- (1984), "Turning a profit from mathematics: the case of social networks," *Journal of Mathematical Sociology*, 10, 343-360.

---- (1979), "Centrality in Social Networks Conceptual Clarification," *Social Networks*, 1 (3), 215-39.

---- (1977), "Set of Measures of Centrality Based on Betweenness," *Sociometry*, 40 (1), 35-41.

Gadde, L. E., L. Huemer, and H. Hakansson (2003), "Strategizing in industrial networks," *Industrial Marketing Management*, 32 (5), 357-64.

---- and L. Mattsson (1987), "Stability and Change in Network Relationships," *International Journal of Research in Marketing*, 4 (1987), 29-41.

Geladi, P. (1988), "Notes on the History and Nature of Partial Least Squares (PLS) Modelling", *Journal of Chemometrics*, 2, 231-246.

Giddens, A. (1979) *Central problems in Social Theory : Action, Structure and Contradiction in Social Analysis*. London : Macmillan.

Grabher, G. (2001), "Ecologies of Creativity: the Village, the Group, and the Heterarchic Organisation of the British Advertising Industry" *Environment & Planning A*, 33, 351-374.

Graham, J. L., A. T. Mintu, and W. Rodgers (1994), "Explorations of Negotiation Behaviors in 10 Foreign Cultures Using a Model Developed in the United-States," *Management Science*, 40 (1), 72-95.

Granger, C.W. (1969), "Investigating Causal Relations by Econometric Models and Cross-Spectral Methods," *Econometrica*, 37 (3), 424-438.

Granovetter, M. (1985), "Economic-Action and Social-Structure - the Problem of Embeddedness," *American Journal of Sociology*, 91 (3), 481-510.

Grayson, K. and T. Ambler (1999), "The Dark Side of Long-Term Relationships in Marketing Services," *Journal of Marketing Research*, 36 (1), 132-142.

Harrison D. and K. Klein (2007), "What's the Difference? Diversity Constructs as Separation, Variety, or Disparity in Organizations," *Academy of Management Review*, Forthcoming.

Heide, J. B. (1994), "Interorganizational Governance in Marketing Channels," *Journal of Marketing*, 58 (1), 71-85.

Heide, J. B. and G. John (1992), "Do Norms Matter in Marketing Relationships," *Journal of Marketing*, 56 (2), 32-44.

Henningsson, M., E. Sundbom, B. Armelius, and P. Erdberg (2001), "PLS Model Building: A Multivariate Approach to Personality Test Data," *Scandinavian Journal of Psychology*, 42 (5), 399-409.

Hundt, Reed E. (1996), "Statement by Reed E. Hundt (Chairman, Federal Communications Commission) regarding passage of The Telecommunications Act of 1996," Issued to Congress. Washington, D.C.: Federal Trade Commission.

Iacobucci, Dawn (1996), Networks in Marketing. Thousand Oaks, California: SAGE Publications, Inc.

---- and Nigel Hopkins (1992), "Modeling dyadic interactions and networks in marketing.," *Journal of Marketing Research (JMR)*, 29 (1), 5.

Jeuland, Abel and Steve Shugan (1983), "Managing Channel Profits," *Marketing Science*, 2 (3), 239-72.

Johnson, M. D. and F. Selnes (2004), "Customer portfolio management: Toward a dynamic theory of exchange relationships," *Journal of Marketing*, 68 (2), 1-17.

Frels, J., S. Tassadduq, and R. Srivastava (2003), "The Integrated Networks Model: Explaining Resource Allocations in Network Markets," *Journal of Marketing*, 67 (January 2003), 29–45.

Gadde, L. E., L. Huemer, and H. Hakansson (2003), "Strategizing in industrial networks," *Industrial Marketing Management*, 32 (5), 357-64.

Gadde, Lars-Erik and Lars-Gunnar Mattsson (1987), "Stability and Change in Network Relationships," *International Journal of Research in Marketing*, 4 (1987), 29-41.

Harary, F. (1969), Graph Theory. Reading, MA: Addison-Wesley.

Harrison, D. and K. Klein (2007), "What's the difference? Diversity constructs as separation, variety or disparity in organizations," *Academy of Management Review*, forthcoming.

Kadiyali, V., P. Chintagunta, and N. Vilcassim (2000), "Manufacturer-retailer channel interactions and implications for channel power: An empirical investigation of pricing in a local market," *Marketing Science*, 19 (2), 127-48.

Kauffman, R. J. and E. A. Walden (2001), "Economics and electronic commerce: Survey and directions for research," *International Journal of Electronic Commerce*, 5 (4), 5-116.

Kim, Peter, Elana Anderson, Julie Katz, and Sarah Glass (2007), "Help Wanted: 21st Century Agency," in Trends, Inc. ForresterResearch (Ed.). Cambridge, MA.

King, C., A. Silk, and N. Ketelhohn (2003), "Knowledge Spillovers and Growth in the Disagglomeration of the US Advertising-Agency Industry," Journal of Economics and MAangement Strategy, 12 (3), 327 – 341.

King, K. W., L. N. Reid, and M. Morrison (1997), "Large-agency media specialists' opinions on newspaper advertising for national accounts," *Journal of Advertising*, 26 (2), 1-17.

Kitchen, P., D. Schultz, I. Kim, D. Han, and T. Li (2004), "Will Agencies Ever 'Get' (or Understand) IMC," *European Journal of Marketing*, 38 (11/12), 1417-1436.

---- and D. Schultz, "A Multi-Country Comparison of the Drive for IMC," *Journal of Advertising Research*, 39 (1), 21-38.

Kotler, P. and K. Keller (2006*), Marketing Management* (12 ed.). Upper Saddle River, New Jersey: Pearson Prentice Hall.

--- and W. Pfoertsch (2006), *B2B Brand Management*. Heidelberg, Germany: Springer Berlin.

Lambe, C., C. Wittmann, and R. Spekman (2001), "Social Exchange Theory and Research on Business-to-Business Relational Exchange," *Journal of Business-to-Business Marketing*, 8 (3).

Liu, Y., D. Putler, and C. Weinberg (2004), "Is Having More Channels Really Better? A Model of Competition Among Commercial Television Broadcasters," *Marketing Science*, 23 (1), 120-133.

Lodish, L. M., M. Abraham, S. Kalmenson, J. Livelsberger, B. Lubetkin, B. Richardson, and M. E. Stevens (1995), "How Tv-Advertising Works - a Metaanalysis of 389 Real-World Split Cable Tv-Advertising Experiments," *Journal of Marketing Research*, 32 (2), 125-39.

Macneil, I.R. (1980), The New Social Contract. New Haven, CT: Yale University Press.

Marcoulides, G. and C. Saunders (2006), "Editor's Comments: PLS – A Silver Bullet?", MIS Quarterly, 30 (2), iii-ix.

McGrath, J. (1982), "Dilemmatics: The Study of Research Choices and Dilemmas," in *Judgment Calls in Research*, Beverly Hills: Sage Publications, 69-102.

McGuire, T. and Richard Staelin (1983), "An Industry Equilibrium Analysis of Downstream Vertical Integration," *Marketing Science*, 2, 161-92.

Michell, P. and N. Sanders (1995), "Loyalty in agency-client relations: the impact of the organizational context," *Journal of Advertising Research*, 35 (2), 9-22.

Miller, Steven (1995), Civilizing Cyberspace. Boston, MA: Addison-Wesley Professional.

Moller, K. K. and A. Halinen (1999), "Business relationships and networks: Managerial challenge of network era," *Industrial Marketing Management*, 28 (5), 413-27.

Money, R. B., M. C. Gilly, and J. L. Graham (1998), "Explorations of national culture and word-of-mouth referral behavior in the purchase of industrial services in the United States and Japan," *Journal of Marketing*, 62 (4), 76-87.

Moorman, C., R. Deshpandé, and G. Zaltman (1993), "Factors affecting trust in market research relationships", *Journal of Marketing*, 57, 81-101.

Moreno, Jacob (1953), Who Shall Survive? Beacon, NY: Beach House.

Morgan, R. M. and S. D. Hunt (1994), "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, 58 (3), 20-38.

Mullarkey, Eileen (2006), "Fuel: A Newsletter for the Interpublic Growth Community," in *Fireworks*, Interpublic (Ed.). New York, New York: Interpublic.

101

Naik, P. A., M. R. Hagerty, and C. L. Tsai (2000), "A new dimension reduction approach for data-rich marketing environments: Sliced inverse regression," *Journal of Marketing Research*, 37 (1), 88-101.

Naik, P. A. and K. Raman (2003), "Understanding the impact of synergy in multimedia communications," *Journal of Marketing Research*, 40 (4), 375-88.

Naik, P. A. and C. L. Tsai (2000), "Controlling measurement errors in models of advertising competition," *Journal of Marketing Research*, 37 (1), 113-24.

Narayandas, D. and V. K. Rangan (2004), "Building and sustaining buyer-seller relationships in mature industrial markets," *Journal of Marketing*, 68 (3), 63-77.

Navarro, N., X. Zatarain and S. Montuire (2004), "Effects of Morphometric Descriptor Changes on Statistical Classification and Morphospaces," *Biological Journal of the Linnean Society*, 83, 243-260.

Parasuraman, A., V. Zeithaml and L. Berry (1985), "A Conceptual Model of Service Quality and its Implications for Future Research," *Journal of Marketing*, 49, 41-50.

Porter, M.E. (1979), "How Competitive Forces Shape Strategy," *Harvard Business Review*, 57 (March-April), 137-145.

Powell, W. W., K. W. Koput, and L. SmithDoerr (1996), "Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology," *Administrative Science Quarterly*, 41 (1), 116-45.

----., D. R. White, K. W. Koput, and J. Owen-Smith (2005), "Network dynamics and field evolution: The growth of interorganizational collaboration in the life sciences," *American Journal of Sociology*, 110 (4), 1132-205.

Rindfleisch, A. and C. Moorman (2001), "The Acquisition and Utilization of Information in New Product Alliances: A Strength-of-Ties Perspective," *Journal of Marketing*. 65 (April 2001), 1-18.

Ringle, C., S. Wende and A. Will (2005), "SmartPLS Release 2.0", Hamburg, Germany: University of Hamburg. Website: www. Smartpls.edu.

Ritter, T., I. F. Wilkinson, and W. J. Johnston (2004), "Managing in complex business networks," *Industrial Marketing Management*, 33 (3), 175-83.

Rust, R. T. and R. P. Leone (1984), "The Mixed-Media Dirichlet Multinomial Distribution - a Model for Evaluating Television-Magazine Advertising Schedules," *Journal of Marketing Research*, 21 (1), 89-99.

102

Rust, R. T. and R. W. Oliver (1994), "The Death of Advertising," *Journal of Advertising*, 23 (4), 71-77.

Schultz, D. and P. Kitchen, "Integrated Marketing Communications in U.S. Advertising Agencies: An Exploratory Study," *Journal of Advertising Research*, 37 (5), 7-18.

Shocker, A., R. Srivastava, and R. Ruekert (1994), "Challenges and opportunities facing brand management: an introduction to the special issue", *Journal of Marketing Research*, 31 (2), 149-58.

Shugan, S. (2004), "Editorial: The Impact of Advancing Technology on Marketing and Academic Research," *Marketing Science*, 23 (4), 469-475.

---- (2003a), "Defining interesting research problems," *Marketing Science*, 22 (1), 1-15.

---- (2003b), "Marketing perspectives on federal communications commission policies," *Journal of Public Policy & Marketing*, 22 (1), 35-40.

Smith, D. A. and D. R. White (1992), "Structure and Dynamics of the Global Economy - Network Analysis of International-Trade 1965-1980," *Social Forces*, 70 (4), 857-93.

Srivastava, R., T. Shervani, and L. Fahey (1998), "Market-Based Assets and Shareholder Value: A Framework for Analysis," *Journal of Marketing*, 62 (January 1998), 2-18.

Srivastava, R., L. Fahey, and H. Christensen (2001), "The Resource-Based View and Marketing: The Role of Market-Based Assets in Gaining Competitive Advantage," *Journal of Management*, 27, 777-802.

Skvoretz, J. and K. Faust. (1999) "Logit models for Affiliation Networks" *Sociological Methodology*, 29, 253-278.

Stern, L. W. and T. Reve (1980), "Distribution Channels as Political Economies - a Framework for Comparative-Analysis," *Journal of Marketing*, 44 (3), 52-64.

Stewart, D. W. and P. A. Pavlou (2002), "From consumer response to active consumer: Measuring the effectiveness of interactive media," *Journal of the Academy of Marketing Science*, 30 (4), 376-396.

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Stremersch, Stefan, Gerard J. Tellis, Philip Hans Franses and Jeroen L. G. Binken (2007), "Indirect Network Effects in New Product Growth," *Journal of Marketing*, forthcoming.

Taylor, C. (2002), "What is Wrong with International Advertising Research?," Journal of Advertising Research, (November/December 2002, 48-54.

Tellis, Gerard (2005), "Advertising's Role in Capitalist Markets: What do we know and Where do we go from here?," *Journal of Advertising Research*, June 2005, 162-70.

Tharp, M. and J. Jeong, J. (2001) 'Executive Insights: The Global Network. Communications Agency', *Journal of International Marketing*, 9(4), 111–31.

Turnbull, P., D. Ford and M. Cunningham (1996), "Interaction, Relationships and Networks in Business Markets: An Evolving Perspective," Journal of Business and Industrial Marketing, 11 (3/4), 44-62.

Uzzi, B. (1997), "Social structure and competition in interfirm networks: The paradox of embeddedness," *Administrative Science Quarterly*, 42 (1), 35-67.

Wagner, S. M. and J. L. Johnson (2004), "Configuring and managing strategic supplier portfolios," *Industrial Marketing Management*, 33 (8), 717-30.

Wasserman, S. and K. Faust (1994), Social Network Analysis: Methods and Applications. New York, NY: Cambridge University Press.

Wathne, K. H. and J. B. Heide (2004), "Relationship governance in a supply chain network," *Journal of Marketing*, 68 (1), 73-89.

Webster, F. E. (1992), "The Changing-Role of Marketing in the Corporation," *Journal of Marketing*, 56 (4), 1-17.

Wendel, S. and B. G. C. Dellaert (2005), "Situation variation in consumers' media channel consideration," *Journal of the Academy of Marketing Science*, 33 (4), 575-84.

Wernerfelt B. (1984), "A resource-based view of the firm,"*Strategic Management Journal* 5: 171–180.

West, D. (1996), Introduction to Graph Theory. Upper Saddle River, NJ: Prentice Hall.

White, Harrison (2002), "Businesses Mobilize PRoduction through Markets: Parametric Modeling of Path-dependent Outcomes in Oriented Network Flows," *Complexity*, 8 (1), 87-95.

Wilkinson, I., L. Young, and P. V. Freytag (2005), "Business mating: Who chooses and who gets chosen?," *Industrial Marketing Management*, 34 (7), 669-80.

Williamson, O.and O. William (1981), "The Markets and Hierarchies and Visible Hand Perspectives," in *Perspectives on Organizational Design and Behavior*, Andrew Van de Ven and William Joyce, Eds. New York: Wiley.

Wold, H. (1963), "Toward a Verdict on Macroeconomic Simultaneous Equations," in *Semaine d'etude sur le role de l'analyse econometrique dans la formulation des plans de developpement*, P. Salviucci (ed)., Scriptz Varia 28 (Pontifical Academy of Science, Vatican City), Cited in Wold, H. (1981), *The Fixed Point Apparoach in Interdependent Sysstems*. Amsterdam: North Holland.

Wold, S. (1993). "Discussion: PLS in Chemical Practice", Technometrics, 35, 136-139.

Wuyts, S. and I. Geyskens (2005), "The formation of buyer-supplier relationships: Detailed contract drafting and close partner selection," *Journal of Marketing*, 69 (4), 103-17.

Wuyts, S., S. Dutta, and S. Stremersch (2004), "Portfolios of interfirm agreements in technology-intensive markets: Consequences for innovation and profitability," *Journal of Marketing*, 68 (2), 88-100.

Wuyts, S., S. Stremersch, C. Van Den Bulte, and P. H. Franses (2004), "Vertical marketing systems for complex products: A triadic perspective," *Journal of Marketing Research*, 41 (4), 479-87.

Zhao, H. (2005), "Incentive-based compensation to advertising agencies: A principal-agent approach," *International Journal of Research in Marketing*, 22 (3), 255-75.

Zhu, K., K. L. Kraemer, S. Xu, and J. Dedrick (2004), "Information technology payoff in e-business environments: An international perspective on value creation of e-business in the financial services industry," *Journal of Management Information Systems*, 21 (1), 17-54.