

OUP CHAPTER 2

Competition as Sensemaking

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The concept of competition has long been a central theme in different literatures concerned with markets. Depictions of competition, however, have varied considerably, both across disciplines and over time. While research in industrial organization can often treat competitive forces as uniform and exogenous constraints on strategic choices (e.g. Bain 1952; Porter 1980), socio-cognitive accounts of competition have emphasized how competitive forces are at least partially endogenous. These developments have drawn the attention to the social and cognitive processes that underlie how firms detect, define, and conceptualize their competitive relationships with other firms (see Cattani et al. 2017; 2018). The purpose here is to elucidate further why such an account is not only useful but also necessary for studying how firms make sense of their competitive environment and, accordingly, make choices. We expect that this chapter can help problematize competition by focusing on the often taken-for-granted assumptions underpinning definitions of competition across different literatures. We hope that our analysis will underscore the inherent challenges in studying competition empirically and that our sensemaking perspective will contribute to the interdisciplinary dialogue on the topic. In this way, our chapter also speaks to some of the issues contemplated in other chapters—particularly the definition and institutionalization of competition (see Chapters 1 and 4, this volume), as well as the notion of competition playing out at multiple levels. (See also Chapter 3, this volume.)

Consistent with other recent work (e.g. Arora- Jonsson et al. 2020), we move away from the notion that competition is simply out there, passively waiting to be observed and then recognized as such. Instead, we argue that competition is the ongoing sensemaking process where different actors (e.g. transaction partners, man-agers, other firms, and even non-contractually involved external audiences) interact and where market boundaries are continuously defined, contested, and redefined. Competition, thus, is socially constructed, and accounts of competition extend from the collective mental models of different actors that weave in and out of the marketplace. Reconsidering fundamental assumptions about competition offers an opportunity to better understand its institutional and organizational foundations (cf. Chapter 4, this volume), while also recognizing its agentic—and, by extension, strategic—nature. The sensemaking approach, for which we advocate, provides such an orientation.

We begin this chapter by first exploring conventional conceptualizations of competition used in different literatures. We then investigate the multi-level cognitive embeddedness of competition among restaurants in New York City through three case studies. These case studies allow us to concurrently portray how prior definitions of competition map onto managerial perceptions of competition. Notably, the New York City restaurant industry is ideal for our research purposes as it allows us to address core questions concerning competitive boundaries that cut across transactional, organizational, and categorical analytical perspectives. Hence, our question-driven empirical approach allows us to exploit the richness of our research setting for the purpose of addressing fundamental issues about competition that go beyond the scope of existing theories and perspectives. Ultimately, we posit that different perspectives of competition (transactional, organizational, and categorical) are only loosely coupled, and we contend that competition is, in fact, construed through a sensemaking process that deploys heterogeneous representations of markets. Finally, we wrap up our chapter by briefly discussing how a cognitively embedded conceptualization of market competition is needed to help overcome the inconsistencies that emerge from more reductionist perspectives of competition, highlighting the inherent strength of the sensemaking approach.

Definitions of market competition

Defining competition in markets is an old problem in the social sciences (see Chamberlin 1933; Robinson 1933), and various disciplines have grappled with the complexities of recognizing and defining competitive relationships in different ways. In particular, three approaches have dominated the economics, strategy, and organizations literatures: (1) cross-elasticities of demand, (2) strategic groups, and (3) the categorical structure of markets. In briefly reviewing these three literatures, our goal here is to explore their strengths and weaknesses and identify how each literature defines competitive relationships in markets.¹

Cross-elasticities of demand

Since Robinson (1933), economists have viewed imperfect competition as a matter of substitution among products. As Bain once put it, ‘The general criterion for inclusion of products in an industry becomes close substitutability, of which perfect substitutability is a special and extreme case’ (1952: 24–5). Triffin (1940) formalized the notion of substitutability in promoting the ‘cross-elasticity’ of demand and supply as a metric for determining the degree of competition among products and firms.

¹ For a more comprehensive review of these three approaches, refer to Cattani et al. 2017; see also Arora-Jonsson et al. 2020 for other conceptualizations related to the origins of competition.

Cross-elasticities depict competition as a relative measure of how sensitive one economic actor is to the behaviour of another. As such, cross-elasticity measurements have become the central metric for defining competitive relationships within industrial organization economics, spawning a large and deep literature on market structure and market power over the years (e.g. Baker and Bresnahan 1985; Bresnahan 1987; Elzinga and Hogarty 1973; Froeb and Werden 1991; Horowitz 1981; Petrin 2002; Scheffman and Spiller 1996; Slade 1986).

Since the 1950s, cross-elasticity metrics have also been at the centre of questions about market power within antitrust deliberations (e.g. Baker and Bresnahan 2008; Werden 1992; 1997); indeed, defining which firms are in a competitive relationship with which other firms (if any) *is* the central question. Recent advances in cross-elasticity measurement combine advanced econometrics with simulations as a way of constructing counterfactual definitions of competitive space within structural estimations of supply and demand (e.g. Berry et al. 1995; 2004). This helps mitigate the complex dimensionality problem by comparing different sets of product and buyer attributes and their best fit with empirical estimations of supply and demand. Such counterfactual analysis has become a widely accepted technique in antitrust regulation as well (e.g. Werden 1997).

Notably, however, cross-elasticity estimation is inherently a backward-looking measure. Hence, much depends on stable competitive relationships and product attributes to estimate future competitive positions (Pleatsikas and Teece 2001). These requirements and deficiencies are sometimes overlooked in academic scholarship, but they are confronted regularly in antitrust courts (e.g. Baker and Bresnahan 2008; Werden 1997). Echoing this broader point, Baker and Bresnahan (2008: 15) concluded their review of the antitrust econometrics literature by suggesting that the inherent complexity of markets and market power ‘makes the use of multiple sources of evidence particularly valuable’. Cross-elasticity of demand, therefore, cannot be the only empirical criterion for the demarcation of competitive boundaries.

Strategic groups

A long-standing criticism of cross-elasticity measurements, given their backward-looking nature, has been that they do not directly assess the active and strategic aspect of what constitutes a competitive relationship. Indeed, cross-elasticity measures do not account for the managerial intent that leads firms to pursue similar strategies and respond cooperatively or competitively to one another. As Weintraub (1942) noted long ago, such inter-firm action and reaction complicates cross-elasticity estimation and also opens up competition to a variety of second-order managerial influences. A firm’s decision to compete directly with another firm on particular dimensions and at a given price is driven by managerial strategic intent. This intent is partially rooted in managerial mental models about the competitive space (e.g. Daniels et al. 2002; Porac et al. 1995), and it is an open question how these models shape, and are shaped by, cross-elasticity metrics.

Relational sociology offers particularly useful insights here as it provides a distinction between market *transactions* and competitive *relationships* (e.g. Tilly 2005; White 1992; 2004). Conceptually, this corresponds to the importance of strategic intent and strategic interaction among competing firms, which was a key motivation for the development of the concept of 'strategic groups' in the strategic management literature. Hunt's (1972) observation of group-level heterogeneity in the home appliance industry was extended by Caves and Porter (1977) and Porter (1976; 1979; 1980), and these works suggest that competition exists because there are 'group of firms in an industry following a same or similar strategy along strategic dimensions' (Porter 1980: 129). In considering the inherent endogeneity of competition within strategic groups, Caves and Porter (1977: 251) argue that 'Because of their structural similarity, group members are likely to respond in the same way to disturbances from inside or outside the group, recognising their interdependence closely and anticipating their reactions to one another's moves quite accurately'.

The strategic groups literature, thus, suggests that activities in markets are not only a function of underlying economic fundamentals such as supply and demand, but they are also derived from socially constructed representations of market-membership. However, this literature can also be portrayed as overly inward-looking since it often overlooks how external audiences can impose categorical structures that frame competitive boundaries. And while the socio-cognitive bases of strategic groups have been explored in several empirical studies to good effect (e.g. McNamara et al. 2003; Ng et al. 2009; Osborne et al. 2001; Porac et al. 1995; Reger and Huff 1993; Wry et al. 2006), there has been almost no research outside the discussions in prior conceptual work devoted to investigating relationships between mental models of strategists and the nature of cross-elasticities among firms.

The categorical structure of markets

Over the past two decades or so, economic sociologists and organizational theorists have explored the structure of competitive markets from a social constructionist perspective. A general approach to market boundaries has begun to take hold, emphasizing the critical role of semantic categories in structuring market relationships (Vergne and Wry 2014). Drawing from research in cognitive psychology, categories are considered key elements in classification systems that impose coherence and create shared understandings of the organizational world that facilitate exchange in markets (Hannan et al. 2007; 2019; Koçak et al. 2014; Porac and Thomas 1994). They do so by establishing semantic boundaries around similar kinds of entities such as products, technologies, genres, people, or organizational forms (DiMaggio 1987; Goldberg, Hannan, and Kovács 2016; Lamont and Molnár 2002; Lounsbury and Rao 2004; Rosa et al. 1999).

In Hannan et al.'s (2007: 33) words, 'members of audiences observe producers and products, notice similarities, try to make sense of them by clustering similar producers/products, and possibly assign labels to clusters'. Hence, research from this

perspective would suggest that the two actors are competitors in the same market if there is a semantic category that is consensually understood by buyers and sellers and that binds their transactions together via common category membership. Research has, indeed, established relationships between the socio-cognitive categorical structure of organizational fields and outcomes such as firm revenues (e.g. Hsu 2006; Zhao et al. 2013), costs (e.g. Ody-Brasier and Vermeulen 2014), perceptions of quality (e.g. Bowers and Prato 2018; Sands 2021), capital inflows (e.g. Pontikes 2012; Smith 2011), and stock prices (e.g. Zuckerman 1999).

Market category research in sociology has contributed to the study of markets in several ways. It calls attention to how collective and culturally produced semantic categories organize and institutionalize markets and industries. Moreover, given that much of this research has measured categories by coding linguistic output from external audience market mediators, such as analysts, critics, and journalists, it has also demonstrated how these external audiences contribute to labelling, codifying, and evaluating individual firms and products in accepted categories. In this way, category research has called attention to the 'category producing infrastructure' of markets and industries, and the set of external audience actors who are involved in making sense of the structure of market transactions and developing category systems for describing them (Cattani et al. 2017). An implication of this latter contribution is that such research *endogenizes* category systems by making them a mutually constitutive part of the market-making process, rather than viewing them as exogenous and unexplained market classification systems. Also, a single omnibus category system for describing intra-industry variation may not be viable as different external audiences may have different categorical perspectives on the same firm. Yet, missing from much of the category research is an explicit focus on firms and their managers as loci for competitive sensemaking and decision-making or the relationship between categorical membership and cross-elasticity measures. Likewise, how the strategic choices of firms are influenced by managerial interpretation and use of collective categories has only recently been investigated (e.g. Pontikes 2018; Pontikes and Kim 2017; Rhee 2015).

Case studies

Our review of the literature, following the heuristic framework provided by Cattani et al. (2017: 79), suggests that there are three analytical perspectives of identifying competitive relationships, each of which corresponds to alternative definitions of competitive relationships as defined by different orientations to markets: transactional (the cross-elasticities of demand perspective), organizational (the strategic groups perspective), and categorical (the categorical structure of markets perspective).

Comparing the coherence and correspondence of competitive relationships (and their metrics) across these three perspectives is a crucial step in refining our understanding of competition in markets. We have described how different literatures have conceptualized and attempted to identify competitive relationships among firms at one of the three analytical perspectives, thus providing a reductionist view of what, in fact, is a more complex phenomenon. Integrating these different literatures into a heuristic framework of competition and introducing measures of competitive relationships across all three of them will afford a window to view where possible (in) consistencies in market definitions occur. This comparative examination, thus, raises the key research question that forms the basis for our study: *what is the correspondence between the identified competitive relationships across transactional, organizational, and categorical analytical perspectives?*

Case construction

In this chapter, we develop three case studies of restaurants to explore the nuances of transactional, organizational, and categorical representations of competitive space. The three restaurant cases were chosen to represent three different cuisine types that exist amongst many within a single zip code in New York City but were randomly selected from within their cuisine category. They allow us to present a detailed comparison of competitive representations given that we can compare specific data from all three analytical perspectives.

For purposes of this study, we use menu items and price data to serve as a proxy for transactional interdependencies. We developed measures for menu overlap between restaurants and the median price for a main course for the restaurants in our sample. That is to say, for each restaurant, we used menu data in order to construct a list of items and prices. For each restaurant, we then calculated the median price of a main course, and for any given pair of restaurants, we calculated how many individual items appeared on both menus (i.e. the overlap in menu offerings between a pair of restaurants).

From the organizational perspective, we develop an understanding of how restaurant owners defined and comprehended the dimensions along which they compete and differentiate among other restaurants through semi-structured interviews of restaurateurs in New York City with a focus on a particular neighbourhood in Manhattan. All respondents were either the owner of the restaurant, the head manager, or both. Interviews began with background questions concerning the history and founding of the restaurant, as well as the training and prior entrepreneurial, business, professional, and networking experiences of the founders. Background questions were followed with those concerning the identity of the restaurant, how the restaurant competes and differentiates, as well as with whom, to what extent, and why. We depict any competitors as 'Competitor 1', 'Competitor 2', and so on, for confidentiality reasons.

In order to assess the categorical structures imposed on restaurants by external audiences, we track the cuisine categories into which New York City restaurants have been classified by three prominent external audience evaluation aggregator websites, *Yelp*, *OpenTable*, and *TripAdvisor*. While each of these review websites has different primary audiences (e.g. general diners, diners making reservations, and travelling diners, respectively), together they provide ample evidence for how restaurants are depicted across the broader external audience category producing infrastructure. To maintain the confidentiality of those restaurants included within our sample, we do not disclose which external audience websites categorized which restaurants; therefore, we list these external audience evaluation aggregators as simply ‘Review Website 1’, ‘Review Website 2’, and ‘Review Website 3’ in our data tables.

Counterfactual competition

As noted in the previous section, we asked each interviewee to list other local restaurants that were competitors, why they listed a particular restaurant, and how their restaurant compared to a competitor on certain key attributes. From this, we constructed a competitor matrix to summarize a restaurateur’s representation of their principal competition. For each of the cases, we compare this competitor matrix with external audience cuisine categorizations and review information, along with data on geographic location, menu overlap, and prices. These comparisons represent the core of our data analysis. In addition, following the logic of counterfactual analysis in identifying market structures (e.g. Berry et al. 1995; 2004; Petrin 2002), we constructed ‘counterfactual’ representations of the competitive landscape for each restaurant and compared these counterfactuals with each restaurateur’s representation. Notably, our qualitative counterfactual analysis draws inspiration from related techniques that have long been used in a wide range of disciplines such as political science (e.g. Allison 1971; Levy 2008; Tetlock and Belkin 1996), philosophy (e.g. Goodman 1947), history (e.g. Black 2015), sociology (Mahoney and Barrenechea 2019), and law (Grossman and Shapiro 1986; Stoljar 2001).

In our case, we construct counterfactuals that represent restaurants that maximized the similarity between one of our sample restaurants on the dimensions of geographic distance, menu overlap, prices, and external audience-defined cuisine categorization. That is, our counterfactual set of competitors is our best estimate of the most plausible definition of competitive relationships for the focal restaurant (of each of our three restaurant cases), considering distance, menu overlap, prices, and external audience-defined cuisine categorization. We selected these dimensions based on their theoretical relevance and pragmatic availability and because these dimensions were most commonly referenced within our exploratory interviews of restaurateurs. Figure 2.1 depicts our empirical strategy showing how we combine data from different sources to map onto the managerial set of competitors, as well as our counterfactual set of competitors.

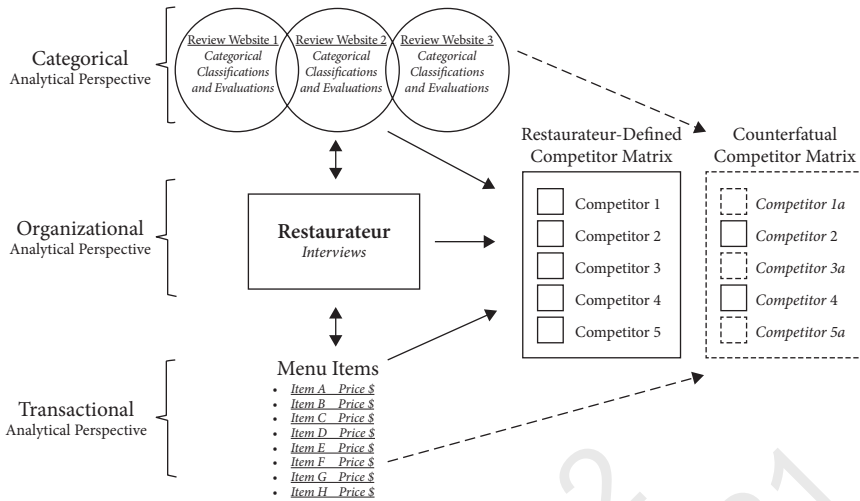


Figure 2.1 Analytical perspectives, data, and the construction of competitor matrices
Notes: Figure depicts how data from multiple sources are integrated to construct the restaurateur-defined and counterfactual competitor matrices.

Case analyses

Case study one: Blue Poppy

The focal restaurant in the first case study will be referred to as ‘Blue Poppy.’² Blue Poppy had been in business for fourteen years at the time of our first interview. At the time of our interviews, it was run by an owner-manager, but it had been founded by the manager’s father and brother. Blue Poppy is a vegetarian restaurant, with vegan options, serving food items that resemble non-vegetarian items but are solely plant based. The restaurant identifies as being a purveyor of ‘vegan comfort food’, serving common dishes such as chicken parmesan (but without actual chicken). More precisely, the manager defined Blue Poppy’s competitive positioning by stating: ‘I [Blue Poppy] have a unique brand of food, I am not serving raw or organic vegetables. I am serving things that look like meat and seafood. That is my niche.’ Therefore, this restaurant is categorized by some review websites based on dietary restriction (e.g. ‘Vegetarian’, ‘Vegan’), and in others based on cuisine genre (e.g. ‘Soul Food’, ‘American’), albeit inconsistently. Two of the three review websites listed the restaurant as ‘Vegetarian’. A different pair of review websites listed it as ‘Asian’, and yet a different pair of review websites as either ‘American’ or ‘Soul Food’. Thus, no two review websites categorize the restaurant in precisely the same categories. In perusing the menu—as well as all online reviews (several thousand from one external audience evaluation aggregator website)—it is clear that the restaurant serves both American soul food (e.g. southern and BBQ-style) dishes and Asian dishes (Table 2.1).

² Cattani et al. 2018, 647–8, make use of this particular case in developing a depiction of the ‘comparability’ component of competitive sensemaking.

Table 2.1 Competitor matrix: Blue Poppy

	Categorization by Review Website 1	Categorization by Review Website 2	Categorization by Review Website 3	Median Cost Main Menu Item	Mean Consumer Evaluation	Number of Menu Overlaps	Distance to Focal Restaurant (Miles)
FOCAL RESTAURANT: <i>Blue Poppy</i>	Vegetarian, Soul Food, Vegan	American, Asian, Vegetarian Friendly	Asian	\$13	4.25		
<i>RESTAURATEUR-DEFINED COMPETITOR MATRIX</i>							
<i>Competitor 1</i>	American, Asian, Fusion	Vegan, Asian Fusion, Kosher	N/A	\$16	4.25	2	0.1
<i>Competitor 2</i>	Vegetarian, Vegan	Vegetarian/Vegan	America, Vegetarian Friendly, Vegan Options	\$22	4.3	4	12
<i>Competitor 3</i>	Vegan, Gluten-Free, Sandwiches	American, Café, Vegetarian Friendly	N/A	\$21	4.25	3	3.9
<i>Competitor 4</i>	Vegetarian, Vegan, Kosher	Vegetarian Friendly, Vegan Options, Gluten Free Options	Gastro Pub	\$16	3.75	2	0.2
<i>Competitor 5</i>	Continental	Cocktail Bars, American (New)	American, Vegetarian Friendly	\$24	4	0	1.7
Mean (Competitors)				19.80	4.11	2.20	1.42
Standard Deviation (Competitors)				3.63	0.23	1.48	1.54

COUNTERFACTUAL COMPETITOR MATRIX

<i>Competitor 1</i>	American, Asian, Fusion	Vegan, Asian Fusion, Kosher	N/A	\$16	4.25	2	0.1
<i>Competitor 2</i>	Coffee & Tea, Vegan, Gluten-Free	Café, American, Vegetarian Friendly	N/A	\$13	4.25	7	0.5
<i>Competitor 3</i>	Vegetarian, Vegan	American, Vegetarian Friendly, Vegan	N/A	\$12	4.25	7	0.2
<i>Competitor 4</i>	Vegetarian, Vegan, Kosher	Vegetarian Friendly, Vegan Options, Gluten Free Options	Gastro Pub	\$16	3.75	2	0.2
<i>Competitor 5</i>	Vegan, Burgers, Ice Cream & Frozen Yogurt	American, Vegetarian Friendly, Vegan Options	Vegetarian	\$10	4.25	4	0.2
Mean (Competitors)				13.40	4.15	4.40	0.024
Standard Deviation (Competitors)				2.61	0.22	2.51	0.15

Note: This table contains the restaurateur-defined (top) and counterfactual (bottom) competitor matrices. For each matrix, five competitors are listed along with information about these restaurants and their relationship to the focal restaurant (*Blue Poppy*).

When asked to name the competition, the manager provided the name of five competitors. However, in discussing why these are the competitors she selected, the manager ultimately dismisses them (and, by implication, cross-firm interdependencies) because she does not believe that Blue Poppy's consumers consider other restaurants to be reasonable alternatives. An example of this appears within the following quote:

When my restaurant is packed they have the option but they don't go [to Competitor 1]. So they are definitely not a competition. You could get a pizza and people actually do. What I do is tell the customer: "Hey guys, this is our routine. Let me take your name and number. You can walk around the park and I will give you a call in 45 minutes." People are so happy with that. If they don't want to wait I tell them they can do a takeout. Give me ten minutes and you can eat in the park. Give these people options [of going to an alternative restaurant] and they will still buy your food.

The restaurateur does not believe that her selected competitors are viable substitutes for her restaurant. This sentiment was reinforced when discussing Competitor 4: 'They [Competitor 4] are vegetarian but they offer different products than us. I don't see them as competition. Even though they are three blocks down, they are just different.' The restaurateur even includes restaurants that are not geographically near or at the same price point. Competitor 5 is not a vegetarian restaurant but offers things that the restaurateur finds appealing: 'I actually went there [Competitor 5] two months ago. I do like the atmosphere. They do serve meat but it is more like health-conscious.'

The set of restaurants that we observe in the restaurateur-defined competitor matrix is not indicative of a lack of more similar restaurants in the area, which could be substitutes. When we compare her matrix to our counterfactual competitor matrix generated by using external audience review websites whose businesses are predicated on defining, ranking, and rating substitutes, we only observe two restaurants (Competitors 1 and 4) appearing in both lists. The counterfactual competitor matrix contains restaurants that are more similar to the focal restaurant on observable characteristics. Notably, the competitors listed by the manager show a median main menu item cost that is 50 per cent higher than Blue Poppy. Likewise, the counterfactual competitor matrix has a 100 per cent increase in menu overlaps compared to the set of competitors listed by the manager. Just like our focal restaurant seeks to offer a menu full of items that appear to be traditional dishes but are actually meat-free alternatives, counterfactual Competitors 3 and 5 offer similar menu items. This case study highlights how a restaurateur does not necessarily define competition as a substitute, as an elasticity-based orientation would presume. Additionally, this restaurateur omitted potential competitors that were geographically near and categorically similar to them. In fact, the mean walking distance between Blue Poppy and the restaurateur-defined competitors was 1.42 miles (and our counterfactual competitors were only 0.24 miles away).

Case study two: Clifford's

The focal restaurant used in the second case study we call 'Clifford's'. Clifford's was founded in the early 2010s by a first-time restaurateur who had originally been a banker but finally decided to open a restaurant after years of deliberation. In the interview, she describes that their intent with founding Clifford's was to establish a restaurant that placed 'a big emphasis on taking care of people'. With only sixteen items on their menu, Clifford's serves dishes such as salads, sandwiches, and pizzas. This restaurant is categorized rather differently across the various review websites (e.g. 'American Traditional', 'Italian', 'Café', 'Pizza', 'Sandwiches'). We speculate that this is, in part, because its identity is based on a regional cuisine. The main menu item is pizza, and the other menu items are very diverse (Table 2.2).

The restaurateur-defined competition matrix is particularly striking when considering that the first listed competitor is only a takeout pizza shop; they do not even carry a full range of menu offerings, nor waiter service, and they are priced significantly lower than Clifford's. Competitor 3 and Competitor 4, while also geographically near,³ do not even have pizza on their menus. Competitor 3's median main menu item is more than double that of the focal restaurant. Competitor 2 and Competitor 5 are so geographically distant that a patron could not travel between the locations without a more-than-thirty-minute taxi or subway ride; accordingly, it is unlikely that consumers would alternate between these options provided a price change or supply constraint. While these distances may be reasonable for defining competitive relationships in some cases (e.g. niche genres or venues focused on special events), the identity of Clifford's (and even the restaurateur-defined competition) does not seem to warrant such expansive competitive boundaries. Moreover, the median menu item (\$12) would be less expensive than a taxi ride from Clifford's to Competitors 2 or 5. Accordingly, there are seemingly no conditions under which a standard consumer would consider these particular restaurants as viable alternatives.

Our counterfactual list is mostly made up of restaurants that are defined by pizza. Only one of the restaurants, Competitor 4, appears in the restaurateur-defined competitor matrix. All of these restaurants are within a few dollars of the interviewed restaurant, and four of five are within a 0.2-mile walk. Notably, the most distant restaurant of the counterfactual competitor matrix (but not as distant as restaurants appearing on the restaurateur-defined competitor matrix), Competitor 5, classifies its cuisine type (regional American cuisine with an emphasis on pizza) in nearly the same way as the focal restaurant, but it does not appear on the restaurateur-defined competition list. Moreover, the restaurateur-defined competitors have a median menu item cost that is 40 per cent more expensive than Clifford's, and the counterfactual set of competition has twice as much menu item overlap compared to the restaurateur-defined set.

³ 'Near' within New York City can be conceptualized as within a neighbourhood boundary or in an adjacent and accessible neighbourhood. Practically, crossing from one adjacent neighbourhood to another takes no more than fifteen minutes via walking or public transportation. In much of New York City, traveling fifteen minutes would lead an individual to pass by hundreds of restaurants.

Table 2.2 Competitor matrix: Clifford's

	Categorization by Review Website 1	Categorization by Review Website 2	Categorization by Review Website 3	Median Cost Main Menu Item	Mean Consumer Evaluation	Number of Menu Overlaps	Distance to Focal Restaurant (Miles)
FOCAL RESTAURANT: Clifford's	American Traditional, Pizza, Sandwiches	Italian, Pizza, American	Café	\$12	4.25		
<i>RESTAURATEUR-DEFINED COMPETITOR MATRIX</i>							
<i>Competitor 1</i>	Pizza	Italian, Pizza, Fast Food, Vegetarian Friendly	N/A	\$6	4.3	1	0.3
<i>Competitor 2</i>	Pizza	Italian	Italian, Pizza	\$15	4.6	2	4
<i>Competitor 3</i>	Breakfast and Brunch, Salads and Sandwiches	American	Seafood, American, Contemporary, Vegetarian Friendly, Gluten Free Options, Vegan Options	\$34	4.3	1	0.1
<i>Competitor 4</i>	Italian	Italian Vegetarian Friendly	Italian	\$14	3.9	1	0.2
<i>Competitor 5</i>	Pizza, Italian	Italian, Pizza, Vegetarian Friendly, Vegan Options	Italian	\$17	4.25	1	4.4
Mean (Competitors)				17.20	4.27	1.20	1.80
Standard Deviation (Competitors)				10.28	0.25	0.45	2.20

COUNTERFACTUAL COMPETITOR MATRIX

<i>Competitor 1</i>	Pizza, Italian	Italian, Pizza, Mediterranean, Vegetarian Friendly, Vegan Options	Italian	\$16	4.4	2	0.1
<i>Competitor 2</i>	Pizza, Italian	Italian, Pizza, Vegetarian Friendly	Italian	\$15	4.1	3	0.1
<i>Competitor 3</i>	Italian, Pizza	American	Italian, Pizza, Vegetarian Friendly	\$12	4	2	0.1
<i>Competitor 4</i>	Italian	Italian Vegetarian Friendly	Italian	\$14	3.9	1	0.2
<i>Competitor 5</i>	Pizza	Italian, Pizza	N/A	\$12	4	4	2.1
Mean (Competitors)				13.80	4.08	2.40	0.52
Standard Deviation (Competitors)				1.79	0.19	1.14	0.88

Note: This table contains the restaurateur-defined (top) and counterfactual (bottom) competitor matrices. For each matrix, five competitors are listed along with information about these restaurants and their relationship to the focal restaurant (*Cliffords*).

The previous evidence suggests how categories do not reconcile the restaurateur-competitor list, nor does the elasticity-s substitution logic seem to explain how restaurateurs perceive a competitor. It is also not the case that the restaurateur lacks a sophisticated view of the market; in fact, she notes how much effort (and expense) is put into making sound strategic decisions: ‘It takes a lot of money to open a restaurant. Now it is such a good calculated move with investors and consultants.’ Likewise, the restaurateur is well aware of the other key actors in the market and is highly embedded in the New York City restaurant industry; she describes socializing with other owners ‘all the time. More since I opened, since we get along better. [We’re] like-minded individuals. You share the same struggles.’ Provided the restaurateur’s sophistication and embedded position in the market, it is perhaps surprising that our counterfactual competitor matrix provides greater overlap with categorical, distance, and price measures. By all quantitative and qualitative measures, the counterfactual competitors are significantly more similar to the focal restaurant than the restaurateur’s cognitive representation.

Case study three: Fish Fish

We will call the focal restaurant in the third case study ‘Fish Fish’. This restaurant had only been opened for about one year at the time of the interview. However, this was the second location of this restaurant that the restaurateur had opened; the other location had been in operation for nearly four years. The restaurateur describes it as a classic sushi restaurant with a very focused menu: ‘sushi, strictly sushi’. Provided this focus, the restaurateur highlights one of their differentiating factors as their homemade sauces that they use with sushi rolls. Because sushi restaurants have a different menu style than do other types of restaurants, we report the median cost of Fish Fish’s signature item, so we can most accurately represent comparisons across restaurants (Table 2.3).

The restaurateur highlights that she finds Fish Fish to be comparable to other premium-product restaurants:

We used to think sushi has a specific demographic but we found that it all comes down to a money thing. It is a financial issue, not a demographic issue, so anybody that has money that could afford to buy a sushi over a hamburger, they buy sushi. Sushi is a premium item. It is a luxury product so people perceive it that way so people have a little bit of spending money, they buy sushi. It is not like a taste thing. Before we also thought it was demographic based 25–35 or women or men, but it turns out everybody from the age of 2–3 years old to like 80–90-year old people, they all buy sushi. Most of the people buy it like a premium product. It is more mainstream now so it’s not like, “Oh! Today it is Friday; we’re going to have sushi because it is Friday”. It is just a regular meal.

Table 2.3 Competitor matrix: Fish Fish

	Categorization by Review Website 1	Categorization by Review Website 2	Categorization by Review Website 3	Median Cost of Signature Rolls or Item	Mean Consumer Evaluation	Distance to Focal Restaurant (Miles)
FOCAL RESTAURANT: Sushi Bars						
	Sushi Bars	Seafood, Sushi, Japanese	N/A	\$10	4.25	
RESTAURATEUR-DEFINED COMPETITOR MATRIX						
<i>Competitor 1</i>	Vegetarian, Sushi Bars, Vegan	Healthy, Sushi, Asian	Vegan	\$7	4.6	1
<i>Competitor 2</i>	Japanese, Sushi Bars	Japanese, Sushi, Asian	N/A	\$12	4	0.1
<i>Competitor 3</i>	Sushi Bars, Japanese	Japanese, Sushi, Asian	Japanese	\$13	4	0.1
<i>Competitor 4</i>	Pizza	Italian, Pizza, Fast food	N/A	\$5	4	0.1
<i>Competitor 5</i>	Italian, American (Traditional)	American	N/A	\$13	4.25	0.5
Mean (Competitors)				10.00	4.17	0.36
Standard Deviation (Competitors)				3.74	0.26	0.40
COUNTERFACTUAL COMPETITOR MATRIX						
<i>Competitor 1</i>	Japanese, Sushi Bars	Japanese, Sushi, Asian	N/A	\$12	4	0.1
<i>Competitor 2</i>	Sushi Bars, Japanese	Japanese, Sushi, Asian	Japanese	\$13	4	0.1
<i>Competitor 3</i>	Japanese, Sushi Bars, Seafood	Sushi	N/A	\$14	4.5	0.2
<i>Competitor 4</i>	Sushi Bars, Japanese	Japanese, Sushi, Asian	Japanese	\$9	4	0.2
<i>Competitor 5</i>	Japanese, Sushi Bars, Buffets	Japanese, Sushi, Asian	N/A	\$13	3	0.2
Mean (Competitors)				12.20	3.90	0.16
Standard Deviation (Competitors)				1.92	0.55	0.05

Note: This table contains the restaurateur-defined (top) and counterfactual (bottom) competitor matrices. For each matrix, five competitors are listed along with information about these restaurants and their relationship to the focal restaurant (*Fish Fish*).

Despite her assertion that Fish Fish does not occupy a narrow competitive space as a sushi restaurant, she then speculates that competition is an unclear construct:

Competition is a very broad term especially in Manhattan where it is so insane. There are a million restaurants just on this block. [...] Any fast casual place, delivery place would be our competition, but it would be cuisine specific. There are so many people, so many options. Nobody is just eating one thing. It is hardly worth worrying about competition; it is worth worrying about being better than what you are today than trying to figure out what that place across the street is doing, when a month later they will be out of business or maybe you will be out of business. Easier doing your thing well and then you have less competition. Somebody can open sushi place next door, then we really have competition, but the place around the corner selling sushi; are they really our competition?

When the restaurateur was asked to specifically name Fish Fish's competition for the competitor matrix, the restaurateur responded: 'My first go would be [Competitor 1], but they are strictly vegan; they don't have dairy or eggs or anything. They are kind of us if you take the fish out of the sushi. They are pretty interesting like a close gauge to us.' Given her previous comments on competition, it is quite surprising that the restaurateur's first listed restaurant in her competitor matrix is a vegan restaurant, selling a non-fish sushi look-alike. Moreover, this restaurant is one mile away. In total, only two of the restaurants in the restaurateur-defined competitor matrix, Competitors 2 and 3, are (fish-based) sushi restaurants.

Our counterfactual competitor matrix includes five sushi restaurants within 0.2 miles of Fish Fish, yet only two of these appear in the restaurateur-defined competitor matrix. Likewise, the amount of variance in the median cost of a signature item is indicative of a broad interpretation of competition. Since sushi is a particularly narrow niche (i.e. it is relatively clear which restaurants are sushi restaurants and which are not), the lack of clarity in understanding why the manager selected so many non-sushi restaurants says a lot about the infinite dimensionality problem as it relates to competition (i.e. it is not clear on which dimensions the manager establishes similarities and differences amongst potential competitors). Given the fact that there are so many seemingly apparent substitutes to Fish Fish based on external audience categorization that do not make it into the restaurateur-defined set of competition, we again highlight the challenge of defining competitive relationships in this market.

Discussion and conclusion

The previous cases ultimately suggest that the three theoretical perspectives that have been proposed to conceptualize competitive relationships (i.e. the cross-elasticities

of demand, strategic groups, and categorical structure of markets perspectives) are only loosely coupled, in the sense that they do not overlap significantly with the restaurant managers' definitions of competitive relationships. Although most of the interview participants cited location and/or cuisine as key dimensions along which they compete, relatively few made explicit mention of price or the restaurant 'concept' or décor. In some instances, participants listed restaurants in the same cuisine category with significantly higher or lower average price points as competitors. In relatively few cases participants cited as competitors were geographically co-located restaurants at roughly the same price point offering a different cuisine type. As such, our interviews revealed both *within* and *between* interviewee variance in mental models of competition.

Our results illustrate how alternative schemas for defining competition can produce remarkably different demarcations in competitive boundaries. In each case, we observe significant heterogeneity in restaurateurs' depictions of competition, though the majority of the participants made reference to location and/or cuisine type when defining competitors. In some cases, this included quite refined comparisons to the extent that one's cuisine might appeal to consumers interested in various substitutes. We find that competition is not entirely a subset of comparable organizations, but at times these two constructs co-mingle. This suggests that managers dimensionalize plausible competitors in a number of ways, and they may seek out comparisons with other market actors on each dimension separately in order to design strategic narratives about their competition (e.g. Rindova and Martins, 2021).

In considering the role of external actors in economic markets, our interviews indicate that organizations may, at times, reject their categorization as defined by external audiences. Nonetheless, these categorical frameworks appear to shape perceptions of competition and help to define competitive boundaries at a more abstract level. In this way, organizations are necessarily assessed with respect to a reference group, and distinctiveness should, therefore, be considered as a collective sensemaking process that extends beyond market exchange partners.

Ultimately, the evidence from these three cases suggests that 'if one looks for clarity in the academic literature measuring competition in markets, one is left even more frustrated' (Cattani et al. 2018: 652). Our qualitative counterfactual analysis, thus, shows that developing a deeper understanding of competition requires one to move beyond isolated transactional, organizational, or categorical analytical perspectives, as no single point of view seems to capture what in essence is the result of a collective attempt to make sense of competitive relationships in markets. A key implication of a sensemaking approach, therefore, is that definitions of competition, and observed competitive relationships, are construed by the actors themselves—whether consumers, firms, external audiences, or even researchers interested in studying competition—rather than simply existing out there as part of the general environment.

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