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Are the parents to blame? Predicting franchisee failure

Ilan Alon Michèle Boulanger Everlyne Misati Melih Madanoglu

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Are the parents to blame? Predicting franchisee failure

Predicting
franchisee
failure

Ilan Alon and Michèle Boulanger

Rollins College, Winter Park, Florida, USA

Everlyne Misati

Florida International University, Miami, Florida, USA, and

Melih Madanoglu

Florida Atlantic University, Boca Raton, Florida, USA

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Abstract

Purpose – The purpose of this study is to show how franchisor characteristics influence franchisee failure. To achieve this aim, we developed a heuristic model using the methodology and power of predictive analytics.

Design/methodology/approach – The authors use data from the World Franchising Council's and from the Small Business Administration (SBA). The data cover 271 diverse USA franchise chains that are present in both databases.

Findings – The model predicts potential defaults of SBA-backed loans issued to American franchisees, and the authors identify 13 variables that help explain franchisee failure.

Practical implications – The authors offer guidance for stakeholder groups – lenders, franchisors and franchisees – to minimize the risk of lending and business failure.

Originality/value – The paper contributes to the franchising literature by considering parent firms' characteristics to predict franchisee failure.

Keywords Franchising, Failure, Predictive analytics, Small business financing

Paper type Research paper

1. Diffusion of franchising: innovation in marketing

Franchising is one of the biggest marketing innovations of the twentieth century, which particularly revolutionized the USA service sector, retailing, restaurants, hotels and a myriad of other service-related industries (Alon, 2012). Franchising is a method of distribution in which a franchisor (principal) grants the franchisee (agent) for a limited time and space the right for distribution, brand and business format in return for consideration, usually in the form of fees and royalties.

The evolution of franchising is instructive to the diffusion of marketing innovations. Franchising in its first business permutation started as a form of a license. Companies would allow a franchisee to display their brands and to sell or distribute their products. This type of first-generation franchising was used by the automobile companies, gasoline brands and wholesale distribution. Franchisees would be given a territory and some constraints on operations and would earn a commission on production.

Franchising did not really take off in the USA until the introduction of its second generation – business format franchising. Business format franchising included not only the brand and product but also the entire business system, operational protocols and intellectual know-how. This generation of franchising used initially by the fast-food



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restaurants, particularly Dunkin Donuts, McDonald's and Subway, ushered a new era of franchising development and economic vibrancy of the USA service sector starting in the 1960s. Business format franchising has shown its resiliency through multiple recessions and industrial change. As the industry struggled to recover from the recession, franchise business leaders reported that issues of financing and access to capital would be of greatest concern in the years ahead, and franchise sales/development would be the second greatest concern (IFA, 2008, 2009, 2010).

This innovative method of distribution has rapidly diffused in the USA, both geographically and across industries, using a successful model of standardization and replication. Franchising provides a central form of entrepreneurial venture creation and growth (Hoy and Shane, 2003). The industry has grown considerably in the recent past both in the USA and overseas. The International Franchise Association (IFA) postulates that franchising plays an important role in the USA economy as a major source of jobs and as a critical engine of economic growth, in every state and in every line of business (IFA, 2008). According to a study published in 2008 by PricewaterhouseCoopers for the IFA Educational Foundation, more than 900,000 franchised establishments generated over US\$880 billion in direct economic output (over 4.4 per cent of the USA private-sector economy). The franchising industry also provided jobs for more than 11 million American workers (just over 8 per cent of all USA private sector employment). These statistics underscore the need to understanding the key success factors of business format franchising in the USA.

While examining the role of franchising in the macroeconomy of developing nations, Michael (2014) found that franchising leads, rather than follows, economic development. Hoffman and Preble (2004) found that 40 nations, representing six continents, appeared to have a substantial and active franchising industry replete with a trade association of their own. However, in 2014, the World Franchise Council (WFC) had 45 registered national franchise associations, thus, indicating that there has been international growth and development in the industry. Table I illustrates the breakdown by continent.

The USA is still a leader in the franchising industry based on the number of USA franchises, and their performance both nationally and internationally. The Entrepreneur's 35th Annual Franchise 500® lists the top ten franchises in the USA in 2014 based on factors such as financial strength and stability, growth rate and size of the system, the number of years a company has been in business, the length of time the company has been franchising, startup costs, litigation, percentage of terminations and whether the company provides financing. But how might these factors affect the success of the franchisee and his/her ability to repay the Small Business Administration (SBA)-backed loan?

| Continent | (Country) Members of the WFC |
|-------------------|------------------------------|
| Europe | 19 |
| Asia | 13 |
| South America | 4 |
| North America | 4 |
| Africa | 3 |
| Oceania/Australia | 2 |
| Grand total | 45 |

Table I.
Country members of
the WFC—by
continent

2. Predicting failure for business format franchisees

Understanding the factors that influence borrowers' ability to repay a loan is critical both for lenders and loan guarantors. However, lenders often do not look at information specifically related to firm strategies when evaluating risk. For example, SBA loan officers do not formally evaluate information on franchisor strategies when determining the riskiness of a loan to franchisees. Our study shows that this may be a costly omission.

Using information on such firm characteristics as total investment, earnings claims, advertising fees, growth rates and franchise experience, franchisees and loan officers can better evaluate the risk of entering into a franchise agreement and of accepting loans. In turn, franchisors can reduce the risk of franchisee failure to pay SBA loans and, by extension, royalties due by following best practices for geographic dispersion, financial assistance and earnings claims.

This paper uses an emerging area of predictive analytics to introduce a model that predicts franchisee failure using information on the franchising strategies employed by the parent franchise firm. The ramifications of the study are substantial for franchisors, franchisees and SBA loan officers who dispense public money to back franchise businesses. Our research is unique in three ways:

- (1) First, it presents a new paradigm that allows researchers to use historical franchisor data to predict franchisee failure.
- (2) Second, it introduces a novel and sophisticated, yet easy-to-use, modeling approach that both practitioners and business researchers can apply.
- (3) Third, this study helps all involved parties (franchisors, franchisees and lenders) to manage their respective levels of risk.

3. The SBA's role in financing franchises in the United States

Franchising offers a major opportunity for entrepreneurial venture creation and growth (Hoy and Shane, 2003), with the vast majority of participants in the franchise sector classified as small businesses (Gaulden and Jackson, 2004). These small businesses are funded primarily by SBA-backed loans, including debt financing, surety bonds and equity financing, all specifically designed to meet key financing needs. Conventional commercial loan markets may not offer small business owners access to the capital needed for growth, although the SBA does not make direct loans to small businesses. Rather, it sets loan guidelines and SBA partners (lenders, community development organizations and micro-lending institutions) make the actual loans. The SBA guarantees that these loans will be almost fully repaid (i.e. 85 per cent) eliminating some of the risk to lending partners (SBA, 2012).

The SBA primarily uses two programs for franchising-related loans: the 504 program and the 7(a) program (Wichmann and Kilpatrick, 2002; Glennon and Nigro, 2005). In 2006, these programs backed more than US\$1.8 billion of SBA guarantees related to franchising, which is fueled by the ability and willingness of lenders to provide debt capital to franchisees. However, in today's financial environment, lenders evaluate more than the franchisee's portfolio, analyzing both the franchisor and overall systemic performance (FRANdata, 2011).

Lenders apply various tools to make small business financing decisions, including established relationships and credit scoring – owner credit score or business credit

score – or both (Cowan and Cowan, 2006). Lenders also consider equity, experience, the business plan and loan collateral (Deegan, 2003).

The SBA does not extend financial assistance to businesses when the financial strength of the individual owners, or of the company itself, is sufficient to provide all or part of the financing. Therefore, both the business and the personal financial resources of the owners are reviewed as part of the eligibility criteria. The SBA also reviews the purpose of the business (for-profit or not), whether the business intends to be established in the USA or its possessions, the size of the business, the purpose of the loan, the ability to repay on time based on projected operating cash flows, management expertise, commitment and character, all based on a “statement of personal history” and a feasible business plan (Wichmann and Kilpatrick, 2002; Glennon and Nigro, 2005; SBA, 2012). In the case of franchising, even though the SBA evaluates both the parent firm (the franchisor) and the borrower (the franchisee), it is not clear how SBA includes parent firms’ business characteristics and strategies when making a lending decision.

4. Why businesses turn to franchising

The franchising research literature uses several theoretical arguments to explain franchise resource use and failure. Franchising allows the franchisor to extend scarce resources by seeking franchisees to finance expansion. Franchisors make multiple decisions related to franchisee qualifications, resources, abilities and communications about their own brand. To manage risk, franchisors prefer to franchise locations that have a lower profit potential and are more distant from their headquarters (Brickley and Dark, 1987). Generally, geographic expansion and sales growth are cited as the main reasons for franchising (Alon, 2006; Julian and Castrogiovanni, 1995).

Agency theory, sometimes referred to as “principal agent theory”, refers to situations where one party (the principal) delegates work to another (the agent). In our case, the principal is the franchisor, and the agent is the employee manager or the franchisee. Agency theory assumes that each party is self-interested and has independent goals, thus prompting the principal to dedicate resources to ensure that the agent acts in the principal’s best interest (Eisenhardt, 1989; Jensen and Meckling, 1976).

Agency theory focuses on resolving two possible problems in agency relationships. First, the principal’s and agent’s desires or goals may conflict or it may be difficult or expensive for the principal to verify what the agent is actually doing and whether it is in the best interests of the principal. Second, risk-sharing may arise when the principal and agent have different attitudes toward risk and prefer different actions because of that. Agency theory posits that firms franchise because they are unable to monitor managers of company-owned outlets efficiently (Combs and Ketchen, 2003). When managerial monitoring costs increase franchisors are more inclined to rely on franchising because franchisees should be self-motivated by their desire for outlet profits (Carney and Gedajlovic, 1991; Shane, 1996).

Resource scarcity theory argues that firms franchise to access scarce resources, especially capital and managerial resources, to expand rapidly (Combs and Ketchen, 1999). Small, young firms may find it difficult to raise capital through traditional financial markets such as public stock offerings or existing operations, and they may consequently face obstacles in developing the requisite managerial talent (Martin, 1988; Shane, 1996). Rapid expansion may be the easiest method to build economies of scale for purchasing and advertising necessary to compete effectively against more established

firms (Carney and Gedajlovic, 1991; Combs and Castrogiovanni, 1994; Polo-Redondo *et al.*, 2011). Resource scarcity theory suggests that firms initially franchise because they lack financial resources (capital scarcity), managerial resources (knowledge-based) and organization capabilities for expansion (Alon, 2006). This theory maintains that once economies of scale are realized, the firm's focus shifts toward maximizing profits through firm ownership, called "ownership redirection" (Oxenfeldt and Kelly, 1968/1969). Resource scarcity explains growth through franchising increases in the early years of a firm's operation, whereas agency theory explains the use of franchising in the later years of a firm's life cycle (Castrogiovanni *et al.*, 2006).

Signaling theory, based on economic contract theory, also examines franchising (Gallini and Lutz, 1992; Dant and Kaufmann, 2003), focusing on the externalities of market imperfections and knowledge asymmetries to explain organizational choice. Entrepreneurs who are keen to attain the incentive advantages of franchising face an asymmetric information problem because franchisors face difficulties in signaling the quality of their concept to prospective franchisees. Struggling franchisors also have an incentive to misrepresent their quality in an attempt to sell more outlets to franchisees (Dant and Kaufmann, 2003). Such misrepresentations and false claims can create adverse selection problems for the users of that information, leading to moral hazard problems when the information varies across individual transactions or outlets because of external reasons (Akerlof, 1970; Eisenhardt, 1985; Holmstrom, 1979). The many lawsuits that often surround franchising agreements are a testament to conflicts over misrepresentation. Policymakers in numerous states and countries have, thus taken an active role to legislate franchisee relationships to address various issues such as termination and registration.

To counter the effects of information asymmetries, firms use signaling devices such as warranties, pricing and advertising and promotion to signal product quality. For example, franchisors can powerfully and credibly signal their own confidence in the profit potential of their concept, its viability and robustness of their systems by operating a critical mass of company-owned outlets sure of the meaning here (Gallini and Lutz, 1992). Signaling theory predicts that franchise systems will move toward a greater reliance on franchised outlets as systems mature (Dant and Kaufmann, 2003).

A number of researchers have tried to reconcile the differences between agency and resource scarcity theories through a comprehensive model of causal connections from each paradigm (Alon, 2001; Carney and Gedajlovic, 1991; Combs and Castrogiovanni, 1994; Combs and Ketchen, 2003). Corresponding variables comparing the three theories are summarized in Table II.

5. How franchising strategies predict franchisee failure

5.1 Data and methodology

In this study, loan defaults are used as a proxy for franchisee failure. To develop a predictive model of franchisee failure, we extracted information from three different datasets:

- (1) cross-sectional data from the WFC's 2008 survey;
- (2) longitudinal data from the WFC's 2005-2008 surveys to calculate the rates of change over the three-year period; and

Table II.
Theories and
corresponding
variables

| Theory | Variables |
|--------------------------|--|
| Agency theory | Number of franchised outlets, number of company-owned outlets, size of corporate staff, average equity investment, average total investment, royalty fees, average franchise fees, state of earnings claims, advertising fees, number of states in the USA and total outlets |
| Resource scarcity theory | Average equity investment, number of franchised outlets, royalty fees, number of company-owned outlets, average franchise fees, growth rate of total outlets, franchise experience, size of corporate staff, percentage of projected outlets over the total, average total investment, number of states in the USA and total outlets |
| Signaling theory | State of earnings claims, advertising fees, growth rate of total outlets, number of company-owned outlets and franchise experience |

- (3) longitudinal data collected by SBA from 2000 to 2008 on franchisors with ten or more SBA-backed loans issued to their franchisees.

We then integrated the three data sets to get a view of a franchisor's characteristics in 2008, its growth rate over the past three years, and its average financial metrics over an eight-year period for its franchisees. Our integration process led to a set of 271 diverse USA franchisors operating between 2000 and 2008 for which we had both the franchise parameters and SBA data on the behavior of financial loans to franchisees (66 variables). A high-level description of our final data set used for modeling and analysis is provided in [Table III](#).

Our modeling approach was based on a data mining technique called structural risk minimization ([Hastie et al., 2001](#)) implemented in a software application developed by KXEN that allows for the extraction of accurate, yet reliable, models in the presence of massive noisy data. KXEN is an American software company, based in San Francisco, CA, that specializes in predictive analytics software.

5.2 Results

The best model of the failure rate of SBA-backed loans extracted from KXEN analysis is a predictive model with 13 variables. [Figure 1](#) displays the performance of the model on the validation data set, a data set not used for modeling purposes, but reserved solely to assess the "closeness" of the predicted failure rate derived from the model to the actual failure rate. Ideally, one looks for a model whose predictions match the observed values exactly. This ideal situation is captured by the diagonal straight line. [Figure 1](#) shows how well our model hugs the ideal diagonal line. The shaded area is the confidence band around the prediction line. Together, the model with these 13 variables explains 50.7 per cent of the total variability seen in the failure rate of our modeling data set. The ability of that model to generalize itself on a pristine dataset is captured as a reliability index of 80.9%.

[Table IV](#) provides a measure of the relative contribution of each one of the 13 variables to the predictive model. It also identifies which theory each variable contributes to, based on inputs from [Table II](#).

The top four contributing variables include average total investment, industry type, number of company-owned outlets and importance of experience in the specific industry.

| Industry | Type | No. of franchisors | Mean (Failure rate) | SD (Failure rate) |
|--------------------------------|---------|--------------------|---------------------|-------------------|
| Lodging | Group 3 | 9 | 0.015 | 0.033 |
| Business-related | Group 3 | 5 | 0.036 | 0.035 |
| Clothing and accessories | Group 2 | 2 | 0.069 | 0.098 |
| Maintenance services | Group 3 | 11 | 0.073 | 0.081 |
| Child-related | Group 2 | 13 | 0.089 | 0.108 |
| Health and fitness | Group 2 | 6 | 0.091 | 0.098 |
| Restaurants (sit-down) | Group 2 | 15 | 0.093 | 0.120 |
| Real estate | Group 2 | 7 | 0.100 | 0.117 |
| General several | Group 2 | 15 | 0.101 | 0.095 |
| Building and construction | Group 2 | 5 | 0.103 | 0.116 |
| Frozen desserts | Group 2 | 14 | 0.104 | 0.082 |
| Education-related | Group 2 | 2 | 0.110 | 0.033 |
| Baked goods | Group 2 | 9 | 0.129 | 0.098 |
| Retail stores | Group 2 | 24 | 0.135 | 0.120 |
| Decorating and home design | Group 1 | 5 | 0.135 | 0.091 |
| Computer products and services | Group 1 | 3 | 0.138 | 0.088 |
| Fast-food restaurants | Group 2 | 75 | 0.144 | 0.135 |
| Personnel services | Group 1 | 1 | 0.158 | NA |
| Pet-related products/services | Group 1 | 3 | 0.171 | 0.053 |
| Retail food | Group 1 | 8 | 0.179 | 0.131 |
| Beauty-related | Group 2 | 9 | 0.184 | 0.184 |
| Automotive | Group 1 | 16 | 0.193 | 0.166 |
| Printing | Group 1 | 7 | 0.210 | 0.136 |
| Sports and recreation | Group 1 | 6 | 0.293 | 0.142 |
| Party-related goods/services | Group 1 | 1 | 0.318 | NA |
| Total | | 271 | | |

Note: The raw data from which SBA calculated mean failure rate for each franchisor was provided, on a voluntary basis, by the actual lenders organizations to the franchisees. SBA aggregated the data provided to them only for franchisors with ten or more SBA-backed up loans to franchisees

Table III.
Sample description

The relationships among the variables and franchisee failure were often non-linear. For example, the association between the failure rate and the average total investment changes at US\$200,000. When the total investment is US\$200,000 or more, the failure rate is lower the greater the investment. However, up to US\$200,000, the higher the investment, the more likely the venture is to fail, perhaps because of a larger relative financial burden on small franchisees.

Industry type is a categorization done as part of the analysis itself. This categorization, shown in [Table III](#), is the second most important variable in our model:

- *Group 1:* Automotive, computer products and services, home décor and design, pet-related products and services, printing, retail food and sports and recreation. This is the riskiest group.
- *Group 2:* Baked goods, beauty-related products, building and construction, child-related, clothing and accessories, education-related, fast-food restaurants, frozen desserts, health and fitness, real estate, sit-down restaurants, retail stores and general services.

Figure 1.
Predicted failure rate
of SBA-backed loans
versus actual failure
rate

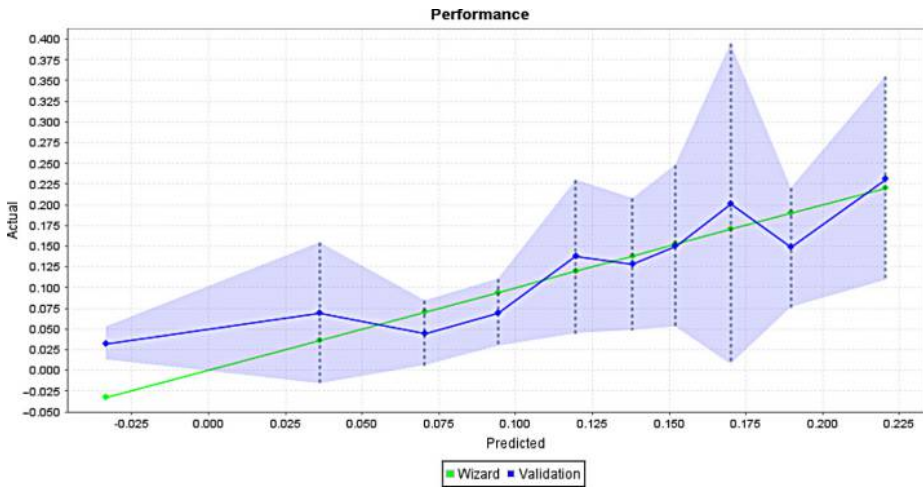


Table IV.
Relative importance
of variables and
theories to predicting
failure rate

| Variable | Measure of contribution to model | Agency theory | Resource scarcity | Signaling theory |
|--|----------------------------------|---------------|-------------------|------------------|
| Average total investment | 0.116 | × | × | |
| Industry type | 0.103 | – | – | – |
| Number of owned outlets | 0.102 | × | × | |
| Importance of specific industry experience | 0.097 | | × | × |
| Financial assistance | 0.078 | | | × |
| Total outlets growth rate 2005-2008 | 0.078 | | × | × |
| Time in operation since first franchise | 0.076 | | × | |
| Passive ownership | 0.073 | | | × |
| Number of states in USA | 0.066 | × | × | |
| Terms of contract | 0.065 | | | × |
| Earning claims state | 0.056 | × | | × |
| Royalty percentage | 0.050 | × | × | |
| (%) distribution overseas | 0.040 | × | | |

- *Group 3:* Business-related services, lodging and maintenance services. This is the lowest risk group.

The relationship between failure rate and per cent of owned outlets appears also to be non-linear. Failure rate is at its highest with very low percentage of owned outlets and steadily goes down till per cent of owned outlets reaches about 9 per cent, and then increases back for percentages between 9 per cent and 15 per cent to finally stabilize after 15 per cent.

Regarding the importance placed by franchisors on franchisee's experience in the specific industry they are entering, the higher the importance level, the lower the expected failure rate.

As to the impact of some of the other variables, the models points toward:

- A lack of earnings claims correlates with a higher failure rate.
- A high growth rate of the total outlets correlates with a low failure rate.
- A longer franchise experience (time in operation since the first franchise) tends to be correlated with lower failure rates, whereas shorter experience (fewer than 12 years) correlates with higher failure.

6. How practitioners can apply the predictive model

This study presents empirical evidence on the use of historical franchisor variables to predict franchisee failure, especially SBA-backed loan defaults. Three stakeholder groups of franchising practitioners can benefit from the findings: SBA loan officers responsible for franchising, franchisors and franchisees. The section below offers suggestions and guidance for all three stakeholder groups.

6.1 Suggestions for lenders

Lenders use certain tools to evaluate a borrower's creditworthiness, including the five Cs of credit:

- (1) *Character*: Signifying the borrower's integrity and reputation.
- (2) *Capacity*: Encompassing the ability to repay and evidence of a sufficient cash flow to service the obligation.
- (3) *Capital*: The borrower's net worth.
- (4) *Conditions*: Of the borrower and the overall economy, such as interest rates and the amount of principal requested.
- (5) *Collateral*: Including the borrower's assets used to secure the debt.

The five Cs of credit are no panacea for today's credit challenges, but they do provide a handy checklist for evaluating a borrower's ability and willingness to pay. The SBA and its lending partners use this checklist to evaluate franchisee creditworthiness.

This study proposes a *6th C: Company (franchisor firm)*, based on a predictive model relating franchisor characteristics to loan behavior and establishing a scoring process for the franchisors. Once established, this scoring can easily be used as a 6th C. Developing the 6th C involves data mining techniques, such as the one used in this study. Lenders, however, should be cautious and ensure regular information updates. Using the 6th C of credit adds another dimension for evaluating franchisee loan credibility, ultimately helping to reduce SBA-backed loan defaults and saving public money.

6.2 Guidance for franchisors and prospective franchisees

Franchisees who want to minimize the chances of loan default should choose a franchisor whose key characteristics and strategies help reduce franchisee failure. For instance, franchisors who claim earnings are signaling the credibility of their operations by virtue of less risky investment opportunities. Simple linear relationships should not be assumed. This is because established franchisors are not necessarily less risky firms because a fast-growing franchise system may be taxing its abilities to transform. Franchisees who do best have either a lot of industry

experience or very little, whereas those with only some experience are most likely to default. Franchisees with little experience may be more successful because they may be following franchisor's directions about how to operate their business. On the other hand, franchisees who are seasoned industry veterans may have a better understanding of not only what it takes for a business to be successful but also are more likely to know how to do it.

Franchisors can help their franchisee business prospects and lower the likelihood of failure if they are open and transparent about their earnings, franchisee earnings and failure cases. Franchisors with either a very inexpensive or very expensive concept seem to have fewer defaulting franchisees. Concepts requiring over US\$500,000 are as likely to succeed as those under US\$50,000 – facts that franchisors can use to signal recruits.

7. Future research

Our findings have some limitations. Data used in this study contain financial metrics on franchisors with ten or more loans backed by the SBA. Thus, the findings are limited to more experienced franchisors. A similar modeling approach might detect differences between younger and older franchise systems. Data reporting, which is voluntary and does not cover all SBA-backed loans to franchisees, is conducted by the banks that actually make the loans. The SBA does not enforce reporting the loan status. As the lenders are not obliged to provide this information to the SBA, they may be reluctant to report excessive failures and charge-off rates that are not good for business.

Business format franchising has reached maturity in the USA. As the franchise sectors mature in the home market, franchisors who wish to grow must look to international markets (Hoffman and Preble, 2004). Michael (2003) argues that individuals across nations choose franchising when wages in their home nation are low, when unemployment is high, when the target nation is culturally distant from the USA, and when opportunity for product differentiation through national media exists. While in the USA, Canada and parts of Western Europe franchising has reached domestic market saturation, emerging markets remain relatively untapped (Anttonen *et al.*, 2005). Opportunities exist to expand the analysis to countries other than the USA to see whether the same failure factors apply. Our data may, however, not be typical in other countries, and therefore, generalizability outside the USA is still unknown.

Although our study makes a unique contribution to loan failure research by evaluating the use of multiple historical franchisor variables to predict the potential default (failure) rate of franchisees, our variables are not exhaustive. Future research could entail assessing managerial level-data, for example, to enhance the predictive model.

Our model paves the way for other applications of predictive analytics pertaining to firm performance. For example, a similar model can be used in international business research related to geographic expansion. Predicting other financial measures such as sales, asset growth and profitability is another potentially fruitful avenue for future research.

References

- Akerlof, G.A. (1970), "The market for 'lemons': quality under uncertainty and the market mechanism", *Quarterly Journal of Economics*, Vol. 84 No. 3, pp. 488-500.
- Alon, I. (2001), "The use of franchising by US-based retailers", *Journal of Small Business Management*, Vol. 39 No. 2, pp. 111-122.
- Alon, I. (2006), "Key success factors of franchising systems in the retailing sector", *SCMS Journal of Indian Management*, Vol. 3 No. 1, pp. 29-36.
- Alon, I. (2012), *Global Franchising Operations Management: Cases in International and Emerging Markets Operations*, Financial Times/Pearson Press, Upper Saddle River, NJ.
- Anttonen, N., Tuunanen, M. and Alon, I. (2005), "The international business environments of franchising in Russia", *Academy of Marketing Science Review*, Vol. 5 No. 1.
- Brickley, J.A. and Dark, F.H. (1987), "The choice of organizational form: the case of franchising", *Journal of Financial Economics*, Vol. 18 No. 2, pp. 401-420.
- Carney, M. and Gedajlovic, E. (1991), "Vertical integration in franchise systems: agency theory and resource explanations", *Strategic Management Journal*, Vol. 12 No. 8, pp. 572-586.
- Castrogiovanni, G.J., Combs, J.G. and Justis, R.T. (2006), "Resource scarcity and agency theory predictions concerning the continued use of franchising in multi-outlet networks", *Journal of Small Business Management*, Vol. 44 No. 1, pp. 27-44.
- Combs, J. and Castrogiovanni, G.J. (1994), "Franchisor strategy: a proposed model and empirical test of franchise versus company ownership", *Journal of Small Business Management*, Vol. 32 No. 2, pp. 37-48.
- Combs, J.G. and Ketchen, D.J. (1999), "Can capital scarcity help agency theory explain franchising? Revisiting the capital scarcity hypothesis", *Academy of Management Journal*, Vol. 42 No. 2, pp. 196-207.
- Combs, J.G. and Ketchen, D.J. (2003), "Why do firms use franchising as an entrepreneurial", *Journal of Management*, Vol. 29 No. 3, pp. 443-465.
- Cowan, C. and Cowan, A. (2006), "A survey-based assessment of financial institution use of credit scoring for small business lending", *Small Business Research Summary*, November, available at: www.sba.gov/advo/research/rs283.pdf (accessed 20 March 2010).
- Dant, R. and Kaufmann, P.J. (2003), "Structural and strategic dynamics in franchising", *Journal of Retailing*, Vol. 79 No. 2, pp. 63-75.
- Deegan, W. (2003), "Preparing for a small business loan", available at: www.westga.edu/~bquest/2003/loan.htm (accessed 20 March 2012).
- Eisenhardt, K.M. (1985), "Control: organizational and economic perspectives", *Management Science*, Vol. 31 No. 2, pp. 134-149.
- Eisenhardt, K.M. (1989), "Agency theory: an assessment and review", *Academy of Management Review*, Vol. 14 No. 1, pp. 57-74.
- FRANdata (2011), "Small business lending matrix and analysis: the impact of the credit crisis on the franchising sector", Report prepared for the International Franchise Association Educational Foundation, Arlington, VA, Vol. 3 (March).
- Gallini, N.T. and Lutz, N.A. (1992), "Dual distribution and royalty fees in franchising", *Journal of Law, Economics & Organization*, Vol. 8 No. 3, pp. 471-501.
- Gaulden, C.F., Jr and Jackson, W.T. (2004), "The franchise system: a preliminary testing platform on the entrepreneurship continuum", in Campbell, K. (Ed.), *Proceedings of the Association*

for Small Business & Entrepreneurship, Southeastern Oklahoma State University, Durant, OK, pp. 238-251.

- Glennon, D. and Nigro, P. (2005), "An analysis of SBA loan defaults by maturity structure", *Journal of Financial Services Research*, Vol. 28 Nos 1/3, pp. 77-111.
- Hastie, T., Tibshirani, R. and Friedman, J. (2001), *The Elements of Statistical Learning: Data Mining, Inference and Prediction*, Springer, New York, NY.
- Hoffman, R.C. and Preble, J.F. (2004), "Global franchising: current status and future challenges", *Journal of Services Marketing*, Vol. 18 Nos 2/3, pp. 101-113.
- Holmstrom, B. (1979), "Moral hazard and observability", *Bell Journal of Economics*, Vol. 10 No. 1, pp. 74-91.
- Hoy, F. and Shane, S. (2003), "Franchising as an entrepreneurial venture form", in Hoy, F. and Stanworth, S. (Eds), *Franchising: An International Perspective*, Routledge, London, pp. 1-18.
- International Franchise Association (IFA) (2008), "2008 Franchised business economic outlook", Prepared by PricewaterhouseCoopers (PwC) for the International Franchise Association (IFA) Educational Foundation, Washington, DC.
- International Franchise Association (IFA) (2009), "2009 Franchised business economic outlook", Prepared by PricewaterhouseCoopers (PwC) for the International Franchise Association (IFA) Educational Foundation, available at: www.franchise.org/uploadedFiles/Franchise%20Business%20Outlook%20Report%20-%20Final.pdf (accessed 25 September 2013).
- International Franchise Association (IFA) (2010), "2010 Franchised business economic outlook", Prepared by PricewaterhouseCoopers (PwC) for the International Franchise Association (IFA) Educational Foundation, available at: www.franchise.org/uploadedFiles/Franchise_Industry/Resources/Education_Foundation/2010%20Franchise%20Business%20Outlook%20Report_Final%202009.12.21.pdf (accessed 14 September 2013).
- Jensen, M.C. and Meckling, W.H. (1976), "Theory of the firm: managerial behavior, agency costs and ownership structure", *Journal of Financial Economics* Vol. 3 No. 4, pp. 305-360.
- Julian, S.D. and Castrogiovanni, G. (1995), "Franchisor geographic expansion", *Journal of Small Business Management*, Vol. 33 No. 2 pp. 1-11.
- Martin, R.E. (1988), "Franchising and risk management", *American Economic Review*, Vol. 78 No. 5, pp. 954-968.
- Michael, S.C. (2003), "Determinants of the rate of franchising among nations", *Management International Review*, Vol. 43 No. 3, p. 267.
- Michael, S.C. and Combs, J.G. (2008), "Entrepreneurial failure: the case of franchisees", *Journal of Small Business Management*, Vol. 46 No. 1, pp. 73-90.
- Oxenfeldt, A.R. and Kelly, A.O. (1968/1969), "Will successful franchise systems ultimately become wholly-owned chains?", *Journal of Retailing*, Vol. 44 No. 4, pp. 69-83.
- Polo-Redondo, Y., Bordonaba-Juste, V. and Palacios, L. (2011), "Determinants of firm size in the franchise distribution system", *European Journal of Marketing*, Vol. 45 Nos 1/2, pp. 170-190.
- SBA (2012), available at: www.sba.gov (accessed 19 March 2012).
- Shane, S.A. (1996), "Why franchise companies expand overseas", *Journal of Business Venturing*, Vol. 11 No. 2, pp. 73-88.
- Wichmann, H. and Kilpatrick, D.J. (2002), "Small business administration and disaster loans", *The CP Journal*, September.

Further reading

- Alon, I. (2010), *Franchising Globally*, Palgrave MacMillan, New York, NY.
- Doherty, A.M. (2007), "The internationalization of retailing: Factors influencing the choice of franchising as a market entry strategy", *International Journal of Service Industry Management*, Vol. 18 No. 2, pp. 184-205.
- Entrepreneur (2014), "Entrepreneur 2014 franchise 500®", available at: www.entrepreneur.com/franchise500/index.html# (accessed 15 April 2014).
- Franchise Direct (2014), "Top 100 global franchises-2014 rankings", available at: www.franchisedirect.com/top100globalfranchises/rankings/ (accessed 15 April 2014).
- Holmberg, S.R. and Morgan, K.B. (2007), "Entrepreneurial global franchise ventures: US and European franchisee failure strategic and empirical perspectives", *International Entrepreneurship and Management Journal*, Vol. 3 No. 4, pp. 379-401.
- Michael, S.C. (1999), "The elasticity of franchising", *Small Business Economics*, Vol. 12 No. 4, pp. 313-320.
- Michael, S.C. (2014), "Can franchising be an economic development strategy? An empirical investigation", *Small Business Economics*, Vol. 42 No. 3, pp. 611-620.
- Strisczek, D. (2009), "The five Cs of credit", *The RMA Journal*, Vol. 91 No. 8, pp. 34-38.
- WF (2012), "World franchising network", available at: www.worldfranchising.com/about_us.php (accessed 18 March 2012).

Corresponding author

Ilan Alon can be contacted at: ialon@rollins.edu

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