Owner–manager perceptions of regulation and micro-firm performance: An exploratory view

Marc E Betton, J Robert Branston and Philip R Tomlinson
University of Bath, UK

Abstract
Regulation has traditionally been explored in terms of its negative burden on financial performance. We posit a true assessment should consider both its burden and value, as well as financial and wider performance criteria. This hypothesis is explored in the context of micro-firms using original survey data from the English tourism industry, using multivariate regression techniques and qualitative comments. Perceived-Burden demonstrates a negative association with financial performance, while Perceived-Value demonstrates a positive association with goal-satisfaction. Resulting policy recommendations focus on accompanying future regulatory changes with appropriate positive information so managers can move beyond burden to recognize the inherent value, and suggesting the need for further research in this area.

Keywords
Micro-firms, regulation, performance, goals

Introduction
Business owners/managers make decisions which contribute to their perceived success/failure. What counts as success/failure is subjective and depends upon the idiosyncratic business goals of owners and managers, and hence how they evaluate performance. Larger firms
traditionally (although not exclusively) focus upon financial measures of performance (e.g. profits/share price/market share). In contrast, smaller (especially micro-)firms tend to favour more personal goal-oriented measures of success, like self-sufficiency/autonomy/sociability (Greenbank, 2001; Peters and Kallmuenzer, 2018; Peters et al., 2018; Wach et al., 2016). The owners/managers of smaller firms will therefore often make different business decisions vis-à-vis their larger counterparts (Dunkelberg et al., 2013). For example, an owner–manager of a Bed and Breakfast (B&B) who aims to spend (more) time with family may prefer to keep their business small to avoid taking up too much time, rather than pursue expansion/profits.

A key determinant of the performance of an enterprise is the extent to which it is impacted by government regulation (FSB, 2004; HM Government, 2013). Regulation, often pejoratively referred to as ‘red-tape’, is designed to ensure businesses comply with minimal standards to meet the wider public interest, yet it is generally perceived by firms as imposing a financial cost and an impediment to business success (Atherton et al., 2008; BRTF, 2007). How much of an impediment will depend upon both the extent of regulation and how success is measured. Yet what is often ignored is that regulation might also create some positive value/benefit, especially in situations where success is not judged monetarily. For example, regulations may lead to new business strategies/opportunities (Teeter and Sandberg, 2017), while also acting as a barrier to entry thereby protecting incumbent firms (Klapper et al., 2006). Therefore, a true assessment of the impact of regulation needs to consider both its cost and its value in relation to appropriate measures of business success.

In micro-firms – herein defined as firms with 0–9 employees (BIS, 2016a; DTI, 2001) – owners and managers are often one and the same, which means these owner–managers are uniquely positioned for an exploration of such issues as they are situated at the heart of their firms, controlling and overseeing virtually all aspects of the business (Edwards et al., 2002; Kelliher and Reinl, 2009). As such, they not only set the goals of the business but are also likely to personally deal with regulatory matters (Edwards et al., 2003; Hart et al., 2008). Micro-firms are also important constituents in most economies. In the UK they account for 96% of firms, 33% of private sector employment, and 21% of private sector turnover (BEIS, 2018). Similarly, they account for 93% of EU firms (Eurostat, 2018) and 79% of US firms (US Census Bureau, 2018).

Much of the existing literature explores regulation by investigating its ‘burden’, which is often found to disproportionately affect micro-firms (e.g. Edwards et al., 2003; HM Government, 2013; OECD, 2001). Such studies generally focus on the financial impact of regulation (e.g. BIS, 2013, 2016b, 2016c; Loayza, 2005; Oto-Peralías and Romero-Avila, 2017), despite evidence that small- and micro-firms favour other measures of success. It is therefore not surprising there is some inconsistency in the evidence that the burden of regulation hampers micro-firm performance (Kitching, 2006; Vickers et al., 2005). These mixed results point to a more complex relationship between regulation and micro-firm performance requiring further exploration.

This study investigates such a relationship by making a three-fold contribution. The first is theoretical. Using extant literature as a basis, we adopt an holistic view of the impact of regulation by exploring the idea that regulation includes both positive (value, largely unexplored) and negative (burden, already explored through various means but to a limited extent in micro-firms) aspects, and that these may have differing effects on business performance as considered by both financial and broader goal measures. We believe we are the first study to allow the impacts to be both positive and negative at the same time. The second
contribution is empirical, via the exploration of these theoretical positions using owner–manager perceptions obtained via original survey data on micro-firms in the English tourism sector using multivariate techniques. This industry presents a fitting case because it is highly regulated (TRT, 2012) and features a large number of micro-firms (Chen and Elston, 2013). Finally, in making these contributions, the paper also advances the relatively overlooked field of micro-firms, particularly those with no employees. Such firms have sometimes been (fully/partially) excluded in prior academic research or have only been included as part of a larger ‘small–firm’ segment, and yet cover a variety of enterprise types including family businesses and new/entrepreneurial ventures. In contrast, we explore all micro-firms, including those with/without employees.

The remainder of this paper is set out as follows. The next section develops a theoretical background by considering how micro-firms are affected by regulation, how their performance is measured, and proposes that regulation has both a cost and value. In doing so, it develops three hypotheses to be tested. The ‘Methodology’ section presents the chosen case, details the primary survey data, and the methodological approaches employed. The ‘Results’ section reports the results, including an ordered-probit model to test financial performance and an OLS regression model to test wider goal-satisfaction. Finally, The ‘Wider discussion’ section explores these findings, before the final section concludes.

**Theoretical background**

**Micro-firms and regulation**

Regulation consists of rules to restrict the decisions that firms/individuals may take in ways that are considered beneficial to society. Unwanted behaviour is prohibited/dissuaded, while desirable decisions are encouraged/mandated (BRTF, 2007). Regulations vary by jurisdiction, but in developed economies they generally cover everything from who can be employed and on what terms, to the way buildings are designed/constructed, and even to the way food is grown/prepared/sold (Silbey, 2013).

Despite their size, micro-firms are usually required to conform with the majority of the regulations that apply to larger firms. Such small–firms may struggle to cope with requirements concerning tax/employment/the environment/etc. (Djankov et al., 2002). Due to their limited resources, and associated lack of managerial expertise, micro-firms are often less able to adapt to regulatory demands and/or cover regulatory/other costs (Kelliher and Reinl, 2009). These challenges are not unique to micro-firms, since larger small–firms are similarly constrained (Carney et al., 2015; Chrisman et al., 2014; Deshpandé et al., 2013; Ibrahim et al., 2015; Kotlar and De Massis, 2013; Miller et al., 2016; Zellweger et al., 2013).

Firms’ interactions with regulation begin before the start of a business’ life where it acts as a barrier to entry because it requires owner–managers to seek and then apply knowledge in a broad variety of areas (BRE, 2010; Murdock, 2012). Indeed, since regulatory requirements are constantly evolving, they remain an important issue throughout the life of a business (Kitching et al., 2015). One particular impact identified by prior research is the financial burden of adhering to regulations and associated influence on firms’ behaviour (Bailey and Thomas, 2017). We posit such effects extend to what micro-firm owner–managers perceive to be relevant regulations, given extant literature on limited managerial knowledge and the risks of potential under/over-compliance (Cumming and Zambelli, 2013; Stokols et al., 2001; Betton et al., 2019). This burden includes both directly
attributable cost increases to acquire/install required equipment and the wider impacts like time for research/understanding (FSB, 2004; Lewis et al., 2015a, 2015b). These wider impacts can also extend to fear/anxiety/misunderstanding based on imperfect regulatory knowledge.

Regulatory burden is widely considered to have a disproportionate effect on micro-firms because the costs/effects do not fully vary in proportion to firm size (Calcagno and Sobel, 2014; Carter et al., 2009; HM Government, 2013; OECD, 2001; Zorpas et al., 2008). Micro-firms are hampered by their limited monetary/time resources, along with poor understanding of the relevant regulations and a lack of managerial skill (Carson, 1985; Johnson, 2002; Betton et al., 2019). For example, higher wage costs following an increase in the minimum wage for which the burden of compliance is at least partially fixed, therefore the overall costs/effects are a disproportionately greater percentage of revenue and managerial time for small–firms (Collard and Godwin, 1999; OECD, 2001). Furthermore, penalties for non-compliance are often not scaled for business size making them particularly harsh for micro-firms (TRT, 2012).

Regulation in English tourism

The specific impact of regulation will partially depend upon the industry/environment being considered and the regulations in force. The English tourism industry is highly regulated, with an estimated 21,000+ regulations (TRT, 2012). This is challenging for micro-firms as it requires owner–managers to seek/maintain/apply knowledge in a broad variety of areas which have clear costs/effects on the regulatory burden. VisitEngland (2012; 2014) provide a guidebook which identifies major areas of applicable regulation. Of these, three are either highly specific to the individual context (e.g. licencing varies depending on the services offered), or consider general issues for which micro-firms are likely to seek and use specialist outside support, minimizing the impact (e.g. business management/tax (King et al., 2014)). This leaves three areas where costs/effects are considerable, although we posit that due to sector experiences (see below), fire safety should be split from health and safety and hence consider there to be four areas of regulation that are not only potentially burdensome in the tourism sector, but also impact micro-firms operating in other sectors as well since they apply to almost all firms that have employees/allow public access. We note there were no substantive changes to any of these four areas during or shortly before the survey period.

Employment regulations enforce restrictions such as base pay, the number of workable hours, and the need for firms to check potential employees are eligible to work.

Anti-discrimination legislation requires firms to make ‘reasonable changes’ to procedures/premises to ensure equal service for all, which is difficult not just because of the general resource limitation of small–firms, but also because the principle-based term ‘reasonable’ is open to varied interpretation (Gerrard, 2011).

Health and safety regulation is spread across many legislative Acts (VisitEngland, 2012; 2014), so there is much confusion and uncertainty as to relevant requirements, hence a trend towards over-cautiousness (HSE, 2017; RoSPA, 2017).

Finally, fire regulations are considered to be particularly troublesome for small English tourism operators (TRT, 2012). A change in the law which sought to simplify over 120 Acts of law (BRTF, 2007) also shifted responsibility to a principle-based approach. Owner–managers must now interpret/apply regulation based on broadly defined
requirements, but without training and with contradictory guidance (Fire Safety Engineering, 2009).

Given the breadth of regulation and the informal record-keeping nature of micro-firms, the costs/effects of regulation are difficult to measure (Chittenden et al., 2002; Peck et al., 2012). Moreover, it can be extremely difficult to identify and monetize cost/effects since it may be impossible to identify what opportunities are lost through increased administration (Chittenden et al., 2002). We therefore propose a new subjective measure of ‘Perceived-Burden’, which is an assessment based on the opinion of the owner–manager who holds a uniquely central role in all aspects of their firm.

**Measuring micro-firm performance**

Performance is a somewhat nebulous concept, difficult to define/measure (Gourvish, 2006). Studies (covering all firm sizes) generally favour traditional financial measures of performance (e.g. revenue/profit/share price), in part because they are easily understood/compared between firms (Fajnzylber et al., 2011; Muñoz-Bullón and Sánchez-Bueno, 2011). Such measures presume a profit-making motive (Murphy et al., 1996; Strielkowski, 2012; Wiklund and Shepherd, 2003). However, there are two issues with this general approach: first, some financial measures are not available to all firms (e.g. share price); and second, not all firms have such a simplistic profit-making motive (Angel et al., 2018; Chrisman et al., 2012; Fisher et al., 2014).

There is growing evidence that owner–managers of small–firms ‘are not motivated by a desire to maximise economic gain’ (Dewhurst and Horobin, 1998: 25) (Chrisman et al., 2015, 2012; Kammerlander and Ganter, 2015), and also that micro-firms in particular hold the more subjective goals of ‘meeting and satisfying the objectives of the owner’ (O’Dwyer and Ryan, 2000: 347). Micro-firm owner–managers are effectively their own shareholders, therefore they operate firms in accordance with their own wishes (not wider stakeholders) (Aronoff and Ward, 2016; Testa et al., 2018). Such broad goals will not only be important as success measures, but will also inform the intention/direction of the business, and hence decision-making (Dunkelberg et al., 2013; Shinkle, 2012; Williams et al., 1989). We therefore posit that regulation affects the setting and attainment of wider goals. For example, an owner–manager wishing to provide employment may focus on expanding the business, but then find employment regulation too onerous and hence limit the goal.

Different performance criteria will be associated with different evaluations of performance (Greenbank, 2001; Strielkowski, 2012) and hence the impact of regulation. For example, measured purely on profitability/growth, many micro-firms would be judged poorly but may score highly for owner–manager satisfaction (Greenbank, 2001). However, no business can completely ignore financial performance if it is to survive (Clark, 2009; Evans and Ilbery, 1992; Pearce, 1990; Sharpley and Vass, 2006). Therefore, a true evaluation of micro-firm performance requires both financial and broader goal-based measures.

The ‘financial performance’ of micro-firms can be appropriately measured using changes in revenue, an easily interpreted financial concept applying to all firms (Blackburn and Hart, 2002; Butler et al., 2012; Che-Ha et al., 2012; McElroy et al., 2001; Miller et al., 2013; Santos and Brito, 2012).
By exploring the notion of Perceived-Burden in a traditional financial manner, we aim to validate our unique measure of Perceived-Burden, before expanding our analysis (see below), thus:

H1: The Perceived-Burden of regulation will demonstrate a negative association with revenue-change.

Broader goal-based measures of performance are comparatively less well developed, particularly when linking performance with business motivations (Jayawarna et al., 2013; Wach et al., 2016). However, it is widely accepted that businesses are started for a number of reasons (Andersson et al., 2002; Chen and Elston, 2013; Greenbank, 2001) and so such goals, and more importantly the satisfaction associated with achieving them, can be a measure of firm performance. A number of potential goals associated with business creation have previously been identified, with a notable inclination away from pure economic motives (Andersson et al., 2002; Birley and Westhead, 1994; Carter et al., 2003; Greenbank, 2001; Ray and Trupin, 1989; Shane et al., 1991). Discounting duplicates/industry specific issues, there is a relatively small set of goals generally held by owner–managers of micro-firms. We hypothesize that collectively these form a measure of micro-firm performance: goal-satisfaction, hence:

H2: The Perceived-Burden of regulation will demonstrate a negative association with goal-satisfaction.

Regulatory value

A focus on the burden of regulation has meant the potential ‘value’ of regulation to firms has generally been overlooked. Indeed, where allowance is made of a positive aspect to regulation it is via one-dimensional scales of attitude towards regulation, where it is explored as a single item between two extremes: burden/benefit; fair/unfair (e.g. Lynch-Wood and Williamson, 2014; Mendoza et al., 2016; Pleasance and Balmer, 2013; Thomas et al., 2016). A more appropriate approach is to use two distinct scales in parallel, independently considering the burden and value of regulation. This allows owner–managers to express opinions on both the negative and positive aspects simultaneously, rather than one at the expense of the other, and hence a more nuanced understanding of the role of regulation on business performance. For instance, an owner–manager may strongly oppose the financial burden created by a regulatory change, while appreciating the benefit it generates to the firm and society.

While regulation is generally created for altruistic purposes, the associated burden generally falls on firms, but benefits often lie elsewhere, usually at the societal level (Fooks and Mills, 2017). Benefits to firms may include improved growth prospects/enhanced competition, which can be difficult to quantify (Djankov et al., 2006; Doran and Ryan, 2012; Liu et al., 2015). Societal benefits are easier to identify, especially since the benefits to business are usually tangential, rather than offsetting any cost. For instance, an increase in the minimum wage has a direct/obvious financial cost increase, while the benefit to the firm could be ‘more motivated/happier workers’, which might increase productivity (Arrowsmith et al., 2003; Schmitt, 2013).
This dichotomy, with costs and benefits accruing in different places, likely explains why small–firm owner–managers have previously struggled to identify regulatory benefits without prompting (Edwards et al., 2003), and also tended ‘towards the negative when spontaneously describing regulations’ (IpsosMORI, 2007: 3). Relevant potential benefits for firms may include: a level playing field across the industry, improved procedures, a stimulus to encourage modernization and innovation (even if only to mitigate the cost of compliance), improved inter-business and industry networking, new business strategies/opportunities, and even finding legitimacy in existing practices (Edwards et al., 2003; IpsosMORI, 2007; Ram et al., 2001; Teeter and Sandberg, 2017). In contrast, the wider benefits are easier to identify, including equipment that is safe, fair/safe working conditions, and fire prevention/detection.

Owner–managers are uniquely positioned to have an holistic view of regulatory benefits, including a public perspective (as they are members of the public) and a business perspective. Furthermore, the two will be intertwined as the close/personal relationships between owner–managers and workers might engender a sense of duty, thereby allowing owner–managers to see benefits from an employee’s perspective (Hasle et al., 2012). For example, the ‘burden’ of maternity leave offset by granting it to a friend (IpsosMORI, 2007). We therefore hypothesize owner–managers are capable of finding (Perceived)-value in regulation which affects their business decisions (BEIS, 2016; Boustras et al., 2015), and hence goal-based performance:

H3: The perceived-value of regulation will demonstrate a positive association with goal-satisfaction

Since the identified value of regulation will not diminish the costs of regulation to the firm, we posit there would not be a direct link to micro-firm revenue.

**Methodology**

**Context, sampling frame, and survey design**

The focus of our study is the English holiday accommodation industry, a highly regulated sector where 70% of businesses are micro-firms, and which contributes 7.1% of GDP, and accounts for 9.5% of UK employment (Tourism Alliance, 2015, 2016). The focus is on England, due to regulatory differences between devolved UK regions. Firms within the industry may be categorized into two sub-sectors: serviced (i.e. B&Bs) and non-serviced (i.e. caravan parks), which indicates the type of accommodation/the services on offer, and hence the regulations which may be in place.

A database of 3805 potential respondents was developed using publicly available sources including relevant trade-associations. Owners were surveyed via post/email, with several follow-ups in the six months following October 2014. There were 706 valid responses, representing a respectable 19% response rate given the sampling frame (Saunders et al., 2015).

The survey was pilot-tested by potential respondents and the main industry associations were approached to check the wording/understanding of the questions and to secure endorsements. Following feedback, a small number of changes were made and the finalized survey was endorsed by The Bed and Breakfast Association (BBA), The British Hospitality
Association, Farm Stay UK, and VisitEngland; and these, plus BedPosts, The National Caravan Council, and The Tourism Society sent information about the study to their members. Respondents were only asked about regulatory areas relevant to their business. For example, only those with two or more workers were presented/asked to complete questions on employment regulation.

**Analytical approaches and model specification**

We deployed several techniques to test the hypotheses developed in the ‘Theoretical Background’ section. We used descriptive statistics and bivariate correlations to explore the data (Ward et al., 2002), then an ordered-probit model (1), to explore the associations between Perceived-Burden and revenue-change (H1). We have included Perceived-Value of regulation in this model for completeness on the basis that we are splitting the impact of regulation into value and burden, rather than a single unified concept. Furthermore, since we have theorized that there is no direct link between Perceived-Value and financial performance, we want to explore it in this way in order to see if this position is supported. The model includes several controls which have been used in prior literature and thus, we have a reasonable expectation for them to demonstrate an association. Additionally, we have included a control called ‘all areas of regulation’, which tests for any bias created by the structure of the survey (given that not all respondents answered all areas). We have also undertaken significant validation tests on the data and techniques utilized, and full details of which are available in supplementary Appendix.A. Each variable is described in the ‘Variable construction’ section below.

\[
\text{Three-year Revenue change} = B_0 + B_1 \text{ Employers} + B_2 \text{ Years in business} \\
+ B_3 \text{ Serviced accommodation} + B_4 \text{ Gender} \\
+ B_5 \text{ Accommodation units} \\
+ B_6 \text{ All areas of regulation} \\
+ B_7 \text{ Perceived—Value of regulation} \\
+ B_8 \text{ Perceived—Burden of regulation} + \varepsilon_i
\]

To explore H2/H3, a further variation of the model is employed (2). With the goal-satisfaction dependent variable being both continuous and scalar, an OLS estimator is utilized. All of our analyses are estimated in Stata v13, first by including the controls then the independent variables.

\[
\text{Goal—Satisfaction} = B_0 + B_1 \text{ Employers} + B_2 \text{ Years in business} \\
+ B_3 \text{ Serviced accommodation} + B_4 \text{ Gender} \\
+ B_5 \text{ Accommodation units} \\
+ B_6 \text{ All areas of regulation} \\
+ B_7 \text{ Perceived—Value of regulation} \\
+ B_8 \text{ Perceived—Burden of regulation} + \varepsilon_i
\]
In addition, the survey included an unsolicited comments box at the end, in which 197 comments were made. In lieu of interviews, which were not possible, these comments have been analysed using constant-comparison thematic analysis (Krueger and Casey, 2009). The comments/emergent themes inform our primary quantitative analysis, particularly regarding causation. The emergent themes are presented in supplementary Appendix.B with exemplar comments integrated into the ‘Results’ and ‘Wider discussion’ sections.

**Variable construction**

**Dependent variables.** *Revenue-change:* The change in nominal revenue across the preceding three years (at the time of the survey), taking an overall view for the period. Responses are coded as decreasing (1), stable (2), and increasing (3).

This measure was chosen to heighten the likelihood of gaining responses given our micro-firm owner–manager targets, who are generally less trusting about providing financial information in surveys or participating at all (Curran, 2000; Johnson, 2002; Pearce, 1990; Thomas et al., 1998). Using the pilot and unsolicited survey comments, we were able to ensure respondents understood our meaning for this measure (*i.e.* the overall change over the period, rather than, for example, marking ‘stable’ for a profit changing by a similar amount (*i.e.* 10% each year for the relevant period). This form of self-reported measure is commonly used in similar studies of small–firms and Cruz et al. (2012) note the accepted reliability and correlation with independently collected data.

*Goal-satisfaction:* The level of satisfaction (1–7 Likert scale, very dissatisfied to very satisfied) with each of a set of up to 10 potential goals for a business, which respondents claimed to hold, averaged into a single construct variable. We developed a list of goals in line with the literature cited in the ‘Theoretical background’ section which was pilot tested. Additionally, we collaborated with the BBA to ensure they approved (as subsequently did all other trade-associations). Table 1 shows the percentage of respondents who reported holding each of the individual goals, along with their mean satisfaction scores. Cronbach’s alpha = 0.88, which is above the minimum generally accepted value of 0.7 (DeVellis, 2012), demonstrating convergent validity (which is true for all of our construct variables).

**Independent variables.** *Perceived-Value:* The level of agreement (1–7 Likert scale, strongly disagree to strongly agree) with the following items regarding the positive aspects of up to four areas of regulation:

- I understand why [each] regulations exist
- I believe [each] regulations are good for business
- [Each] regulations are a sensible control on firms

Note each statement was presented for the four areas of regulation, with the name of the regulation in place of [each]. The items are partly based on Edwards et al. (2003) and IpsosMORI (2007), from whom we have extrapolated statements based on their results and were developed using Spector’s (1992) guidelines. The construct is the mean score of agreement across each survey item for up to four areas of regulation. Perceived-Burden (below) is constructed in the same manner.

The items used to capture the Perceived-Value and Perceived-Burden of regulation (below) consider regulation generally, rather than the impact of a specific regulation.
This approach allows for the inherent variation between firms and offsets both the negative preponderance observed in previous studies regarding the burden of regulation and the apparent difficulty that firms face when independently identifying the potential positive impacts of regulation (Edwards et al., 2003; IpsosMORI, 2007). Furthermore, the items consider both the impact within the firm and broader society.

**Perceived-Burden:** Based on the level of agreement (1–7 Likert scale, strongly disagree to strongly agree) with the following items for each of up to four areas of regulation, related to the perceived ‘burden’ that firms may face (otherwise see above):

- Small businesses, such as my own, should be exempt from the full force of [each] regulations
- The protections afforded by [each] regulations are an unreasonable burden on my firm

**Controls. Employers:** Accounting for the difference between ‘one-man-bands’ (0) and firms with 1–8 additional employees (1), distinguishing the smallest, least complex firms, from those which are larger and thus subject to wider regulation. In the full dataset, the mean number of workers (including the owner–manager) is 2.79, and 25.9% of respondents consisted of only the owner–manager.

**Years in business:** The number of years that the owner–manager has operated the business. We expect mature firms to act differently and react to stimulus, such as regulation, in a different manner to younger firms (García-Quevedo et al., 2014).

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**Table 1.** Owner–manager identified goals.

| Goal                                                        | Percentage of respondents reporting they hold the goal | Mean satisfaction<sup>a</sup> | SD   |
|--------------------------------------------------------------|--------------------------------------------------------|------------------------------|------|
| Being your own boss                                         | 55                                                     | 6.28                         | 0.78 |
| Desire to meet new people                                    | 29                                                     | 6.20                         | 0.73 |
| To have work satisfaction                                    | 44                                                     | 5.94                         | 0.95 |
| To pursue a desired lifestyle or hobby                      | 24                                                     | 5.92                         | 0.87 |
| Giving employment opportunities to those who need them       | 7                                                      | 5.69                         | 1.04 |
| To be challenged by the problems and opportunities of operating a business | 14                                                     | 5.67                         | 1.21 |
| Giving employment opportunities to your family               | 13                                                     | 5.64                         | 1.01 |
| To have greater flexibility for your personal and family life | 38                                                     | 5.42                         | 1.35 |
| Achieving financial security                                 | 58                                                     | 5.24                         | 1.20 |
| Having free time for non-business activities                 | 25                                                     | 5.15                         | 1.46 |
| Goal-Satisfaction (the overall score)                        |                                                        | 5.62                         | 1.01 |

Note: Scale (1–7) where 1 indicates very dissatisfied and 7 very satisfied.

<sup>a</sup>Mean satisfaction among respondents who held the goal.
**Serviced accommodation:** Distinguishes between serviced accommodation (1), and non-serviced accommodation (0), to identify the service provided, and allow for differences relating to the extent/type and enforcement of regulation.

**Gender:** Of the person completing the survey, generally also the owner–manager: women (0) men (1).

**Accommodation units:** The total number of accommodation units which are available within the firm, indicating the relative size of the business. These may be rooms (B&Bs), pitches (caravan parks), or lodges/cottages (self-catering accommodation).

**All areas of regulation:** As the values of Perceived-Value and Perceived-Burden are determined by the mean score of up to four areas of regulation, this categorical variable distinguishes between respondents who did not answer the questions for all four areas of regulation (0) and those who did (1). Forcing respondents to answer all areas would create bias (i.e. employment knowledge would be understandably lower in firms without employees), so this tests for any bias created by the different number of questions used to form the independent variables (Hair et al., 2010; Lavrakas, 2008; Betton et al., 2019).

**Results**

**Descriptive statistics**

Table 2 presents the descriptive statistics of the core variables. It is interesting that the mean of the Perceived-Value of regulation (5.28) is considerably higher than that of the Perceived-Burden (3.81), respectively, corresponding with ‘somewhat agree’/‘agree’, and ‘somewhat disagree’/‘neither agree nor disagree’. This suggests despite common rhetoric highlighting only the burden of regulation, respondents in fact seem to value regulation more than they identify it as an actual burden. Furthermore, there is a clear negative correlation between Perceived-Value and Perceived-Burden (−0.47), suggesting that as Perceived-Value increases, Perceived-Burden decreases, implying value may actually offset burden to some extent. Moreover, several unsolicited comments spoke of the ambiguity towards both Perceived-Value and Perceived-Burden, such as:

> when I started … I had far more free time. I now spend most of my days sat here and working [thanks to regulation]. Joy! And there is a lot of satisfaction to be had providing holiday makers with lovely accommodation, which I guess is why I am still doing it. (respondent-4048)

These initial results demonstrate the importance of exploring both value and burden when considering regulation and therefore present an area for further study.

Table 2 also demonstrates a small positive correlation (Cohen, 1988; Kane, 2013) between revenue-change and goal-satisfaction, indicating a (small) link between the objective and subjective measures of success.

**Revenue-change**

There are small negative correlations between revenue and Perceived-Burden, lending initial support for H1, which has been further explored econometrically in Table 3, with marginal effects in Table 4.
Table 2. Descriptive statistics.

|                  | Mean | SD  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  |
|------------------|------|-----|----|----|----|----|----|----|----|----|----|
| 1. Perceived-Value| 5.28 | 0.81 |    |    |    |    |    |    |    |    |    |
| 2. Perceived-Burden| 3.81 | 1.15 | -0.47 |    |    |    |    |    |    |    |    |
| 3. Goal-satisfaction | 5.62 | 1.01 | 0.29 | -0.19 |    |    |    |    |    |    |    |
| 4. Revenue-change | 2.15 | 0.71 | 0.11 | -0.17 | 0.21 |    |    |    |    |    |    |
| 5. Employers     | 0.74 | 0.44 | 0.01 | -0.01 | -0.11 | 0.05 |    |    |    |    |    |
| 6. Years in business | 15.67 | 11.30 | -0.11 | 0.13 | 0.01 | -0.30 | 0.01 |    |    |    |    |
| 7. Serviced      | 0.40 | 0.49 | 0.08 | 0.01 | -0.04 | -0.07 | -0.10 | -0.10 |    |    |    |
| 8. Gender        | 0.39 | 0.49 | -0.12 | -0.05 | -0.03 | 0.04 | 0.22 | 0.00 | -0.21 |    |    |
| 9. Accommodation units | 18.81 | 47.15 | 0.01 | -0.03 | -0.02 | 0.04 | 0.15 | 0.17 | -0.23 | 0.14 | -    |
| 10. All areas of regulation | 0.29 | 0.45 | 0.12 | 0.09 | -0.02 | 0.03 | 0.28 | -0.10 | 0.23 | 0.02 | 0.09 |

*p < 0.05.

Table 3. Ordered-probit. Dependent variable: three-year revenue-change.

| Independent variables | (1)      | (2)      |
|-----------------------|----------|----------|
| Employers             | 0.113 (0.135) | 0.110 (0.135) |
| Years in business     | -0.035*** (0.005) | -0.034*** (0.005) |
| Serviced              | -0.074 (0.124) | -0.082 (0.125) |
| Gender                | -0.056 (0.114) | -0.077 (0.116) |
| Accommodation units   | 0.003*** (0.001) | 0.003*** (0.001) |
| All areas of regulation | -0.049 (0.130) | -0.055 (0.128) |
| Perceived-Value       | -0.0004 (0.086) |    |
| Perceived-Burden      | -0.155*** (0.055) |    |
| Cut 1                 | -1.481 (0.157) | -2.073 (0.608) |
| Cut 2                 | -0.098 (0.147) | -0.667 (0.607) |
| Log likelihood        | -452.417 | -447.357 |
| Chi-square            | 58.72 (6df) | 68.89 (8df) |
| Pseudo R²             | 0.058 | 0.069 |
| N                     | 466 | 466 |

*p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard error in parentheses.

Table 4. Marginal effects for three-year revenue-change.

|                  | Pr(Y = 1) dy/dx | Pr(Y = 2) dy/dx | Pr(Y = 3) dy/dx |
|------------------|-----------------|-----------------|-----------------|
| Employers        | -0.027 (0.033) | -0.014 (0.015) | 0.040 (0.048) |
| Years in business | 0.008*** (0.001) | 0.005*** (0.001) | -0.012*** (0.002) |
| Serviced         | 0.020 (0.030) | 0.011 (0.016) | -0.030 (0.045) |
| Gender           | 0.018 (0.028) | 0.010 (0.015) | -0.028 (0.042) |
| Accommodation units | 0.001*** (0.000) | -0.0004** (0.000) | 0.001*** (0.001) |
| All areas of regulation | 0.013 (0.031) | 0.007 (0.016) | -0.020 (0.047) |
| Perceived-Value  | 0.0001 (0.019) | 0.0001 (0.011) | -0.0002 (0.029) |
| Perceived-Burden | 0.037*** (0.013) | 0.021*** (0.008) | -0.057*** (0.021) |

*p < 0.1, ** p < 0.05, *** p < 0.01. Standard error in parentheses. dy/dx is for discrete change of dummy variable for all but the accommodation units, and perceptions of value and burden.

Note: Dependent variable coded (1) decreasing, (2) stable, (3) increasing.
In the model, Perceived-Burden demonstrates a negative association. Indeed, every one-unit increase in Perceived-Burden is associated with a 5.7% lower chance that three-year revenue-change is reported as increasing, lending further support to H1. Furthermore, we can see that Perceived-Value has no statistically significant association with revenue-change. This implies the benefits of regulation are seemingly not related to financial performance, which is as we theorized. Additionally, the model demonstrates a negative association with the number of years in business (1.2% less chance that three-year revenue-change is reported as increasing, for each additional year in business), implying that the firms’ point in the business lifecycle matters. There is also a statistically significant, although negligible (0.1% marginal effect), association with the number of accommodation units. We also note that Perceived-Value is not significant in the model, in line with our theoretical development. Finally, we note that the ‘all areas of regulation’ dummy is not significant in this, or indeed, any of the models, suggesting they are free of bias created by the structure of survey responses.

Goal-satisfaction

The mean score for goal-satisfaction is 5.62 (Table 2) suggesting that overall, respondents – in broad terms – are generally satisfied with their performance using this wide-ranging measure. Furthermore, the small negative correlation with Perceived-Burden lends support for H2, and the small positive correlation between goal-satisfaction and Perceived-Value lends support for H3. This again demonstrates both the imbalance between value and burden, and suggests that for goals, Perceived-Value has a stronger relationship than Perceived-Burden. To explore this further, Table 5 presents the OLS regression model for goal-satisfaction.

Here Perceived-Burden has no statistically significant association with goal-satisfaction; thus, despite the earlier correlation, H2 is not supported. This suggests regulations are not detrimental to goal-satisfaction measures of performance despite anecdotal evidence about the damaging effects of red-tape and unsolicited comments, e.g. ‘[I] reduced my staff due to

| Independent variables | (1)         | (2)         |
|-----------------------|-------------|-------------|
| Intercept             | 5.830***    | 4.052***    |
|                       | (0.112)     | (0.539)     |
| Employers             | -0.206*     | -0.189*     |
|                       | (0.105)     | (0.100)     |
| Years in business     | 0.0002      | 0.004       |
|                       | (0.004)     | (0.004)     |
| Serviced              | 0.013       | -0.016      |
|                       | (0.093)     | (0.089)     |
| Gender                | -0.088      | 0.050       |
|                       | (0.097)     | (0.092)     |
| Accommodation units   | -0.001      | -0.001      |
|                       | (0.001)     | (0.001)     |
| All areas of regulation | -0.007     | -0.072      |
|                       | (0.103)     | (0.098)     |
| Perceived-Value       | 0.351***    | 0.072       |
|                       | (0.078)     | (0.078)     |
| Perceived-Burden      | -0.035      | -0.035      |
|                       | (0.046)     | (0.046)     |
| R²                    | 0.015       | 0.105       |
| F                     | (6464) 1.54 | (8462) 5.79 |
| N                     | 471         | 471         |

OLS: ordinary least squares.
* p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard error in parentheses.
PAYE rules and regulations which meant more time on computer and away from hands on work’ (respondent-1963).

The results also show that Perceived-Value has a statistically significant and positive association with goal-measured performance, thereby supporting H3. This result, combined with the different means for Perceived-Value and Perceived-Burden, implies that regulation is valued more than being considered as a burden when wider performance measures are adopted.

While the number of years in business shows no statistically significant relationship in this model, the employers dummy demonstrates a negative association, with the smallest firms (having no employees) more satisfied. This may be a result of the inherent complexity which comes from running a larger firm, along with an increased degree of separation between the owner–manager and the business. For example, by hiring a receptionist, the owner–manager of a B&B may spend less time with customers hampering satisfaction towards the goal ‘desire to meet new people’.

**Wider discussion**

These results support both of our central conjectures: owner–managers find value and burden in regulation, and satisfaction towards goals and financial measures are both insightful and complementary regarding the performance of micro-firms. Perhaps the most important result is that we have demonstrated the benefit in this holistic approach to measuring the relationship between regulation and performance.

Our finding that the Perceived-Burden of regulation has a negative association with revenue identifies in micro-firms what has been found elsewhere for larger small–firms. However, we must be cautious about assigning causality, given our available data and the nature of micro-firms. For instance, we note prior research has found small/family firms ‘blame’ external factors (like regulation) for poor performance, thereby suggesting poor performance drives onerous regulatory perceptions (Gomez-Mejia et al., 2001; Hienerth and Kessler, 2006; Jayamohan et al., 2017). However, while this cannot be discounted, by exploring the Perceived-Value and Perceived-Burden independently, we gain a more nuanced understanding of regulation. This holistic view not only divorces performance from a one-dimensional view of regulation, but in our case, finds Perceived-Value to have a higher mean than Perceived-Burden. We therefore posit that if poor firm performance was driving perceptions of regulation then we would expect the Perceived-Value of regulation to be lower than the Perceived-Burden, which is not the case. We therefore tentatively suggest our results imply Perceived-Burden influences financial performance as per our theoretical development. Indeed, the unsolicited comments relating to Perceived-Burden (of which there were more than other themes, likely due to the strong negative rhetoric surrounding regulatory issues) lend themselves to support this view. For example, respondent-4247 commented: ‘regulations I know are a must, but it does financially cost small businesses’, while respondent-4361 remarked ‘we are a small business. I would never employ a part-timer ever again because of the paperwork involved and the costs’.

We have found that Perceived-Value has a statistically significant and positive association with performance measured in terms of goal-satisfaction. This was in line with our theoretical development where we hypothesized the value inherent to regulation would impact firm decision-making, and hence their goal-based performance. As with Perceived-Burden, we must be cautious in considering the direction of causality, given it may be that firm
performance generates perceptions of regulatory value. However, such reverse causality seems unlikely given our dual-approach to exploring perceptions of regulation, and because our results show no association between financial performance and Perceived-Value. Indeed, in this regard the unsolicited comments on regulatory value and goals suggest causality in line with our theoretical development and nothing contrary. For instance, respondent-6220 commented, on the ‘…challenge [of running a business and dealing with regulation] and to enlighten people to the hidden secrets of where we live, is reward in itself’.

Further credence to our suggested causalities is found by there being no significant relationship observed between the Perceived-Burden and goal-satisfaction, which is in line with our theoretical background. In this regard, the unique central role played by owner–managers in micro-firms is again important. Owner–managers are exposed to all relevant regulations, along with the potential impacts and perceived burdens, and must also devise ways to comply. In contrast, in SMEs/larger firms, there is likely to be insulation between regulation and the ultimate owner. Therefore, the owner–manager of a micro-firm likely develops an instinct for burden based upon the aggregation of all possible negative impacts, most notably the financial, thereby heightening the perceived overall burden. Similarly, legally compliant owner–managers may still worry about the potential costs of an employment tribunal simply because they have been exposed to ‘horror-stories’ featured in trade-association publications (Peck et al., 2012). We therefore suggest that while it is not possible to assert the concerns over the Perceived-Burden of regulation are invalid, our results suggest such concerns may be overstated in relation to the wider goal-based performance measures preferred by micro-firms.

Having identified that burden of regulation may be overstated within other studies, we would therefore also suggest the value of it may be understated. This might be because, as previously found, owners and managers are much faster to point out the burdens of regulation than identify the benefits. Indeed, most unsolicited comments relating to value identified benefits outside of the firm. For example, ‘I believe that regulations are essential for the safety of the public’ (respondent-3804).

In addition to Perceived-Value and Perceived-Burden, our results highlight two further factors which demonstrate associations with performance. First, the number of years in business was found to have a negative association with financial performance. This may be due to older firms being in a later part of their business lifecycle, thus no longer new and expanding. Given some of the unsolicited comments regarding Perceived-Burden, it is also likely that more experienced owner–managers, who may have been exposed to more regulations, are actively attempting to reduce the size of the business to reduce the perceived burden (as some regulations do not (fully) apply to smaller firms). For example: ‘I know that many small businesses are thinking of giving up providing accommodation because … complying with the regulations is becoming too onerous’ (respondent-4056). Since the number of years in business has no association with goal-satisfaction, despite such comments, this again highlights the importance of investigating both value and burden, along with how micro-firm owner–managers measure performance, as older owner–managers remain as satisfied as their younger counterparts, even in the face of stable or decreasing revenue.

Second, the employers dummy had a negative association with goal-satisfaction, but no relationship with financial performance. This is not entirely unsurprising, as a firm looking to enhance profits would only employ workers when it made financial sense, but a firm with more employees will be larger and hence more complex. This complexity may be the issue for goal-satisfaction as there is likely to be increasing separation between the
owner–manager and some aspects of the business as it grows. Furthermore, employment regulations in our context become increasingly complicated over a relatively small threshold of workers, thus increasing the organizational complexity in a nonlinear fashion, thereby creating a dynamic shift between operating as a ‘one-man-band’ and employing workers. This is in line with comments relating to Perceived-Burden, e.g. ‘the current situation is that there is so much legislation it is impossible to know and comply with all the regulations’ (respondent-1570).

Conclusions

Using newly collected primary data focussed on often overlooked micro-firms in the English tourism industry, we identified owner–manager goal-satisfaction to be an appropriate measure of business performance. Furthermore, unlike previous studies, we investigated both the Perceived-Value and Perceived-Burden of regulation. Despite the negative rhetoric on the damaging impact of red-tape on firms, we found the burden of regulation has likely been overstated in studies of small–firms. Our results show while regulation does demonstrate a negative association with revenue-change, it has no association with goal-satisfaction which is a more relevant measure of success for micro-firms. This dichotomy between different performance measures goes a long way to explaining the inconsistent results of previous studies on the impact of regulation which have usually concentrated on financial measures of performance and burden. Meanwhile the Perceived-Value of regulation, which has not been explored before, is positively associated with the type of performance that matters most to micro-firms.

There is some potential risk of reverse causality in our exploration, as we are limited by the data available. However, the unsolicited comments from our survey suggest the causality is that the Perceived-Value and Perceived-Burden affect micro-firm performance but deserves further exploration. In this sense, we have found regulation to be both good and bad for firm performance in contrast to other studies and would therefore suggest this holistic approach is a better way to examine the impact of regulation. Indeed, this suggests that financial success is not necessarily desired for its own sake but for how it facilitates the realization of the wider set of goals held by owner–managers.

While we have explored the context of English tourism, we believe that through our choice of regulations these results are applicable to a broad range of settings. Therefore, future researchers could explore these issues further in other industries.

Given past studies have illustrated that owner–managers cannot identify easily the benefits of regulation, our findings suggest it is crucial that any future regulatory changes are accompanied by information on the rationale behind the regulation and the positive impacts it might bring. To do so will enhance the benefits associated with the regulation and hence perceived performance, while also helping to move away from viewing regulation merely as an unwelcome burden.

In drawing these conclusions, we recognize our study might be limited by our measure for financial success. Future research should seek to repeat our analysis with more refined measures and may wish to explore broader related issues. Furthermore, our survey captured firm goals at a single point in time, and future studies may wish to examine how they may have changed over the course of the business lifecycle or as a result of regulatory (or other) impacts. It could be argued that Perceived-Burden’s lack of association with goal-satisfaction is due to goals being ‘rewritten’ around regulation. Since we examined a
pre-defined list of goals that owner–managers held, we suggest such an impact is limited but it would be difficult to quantify this without a longitudinal study. In addition, a longitudinal study would also allow researchers to explore changing attitudes towards regulations over time, as well as exploring the impact of specific regulatory changes alongside insights into causality. Such issues would benefit from being explored in interviews with owner–managers, which could also offer further insights into the causality between Perceived-Value, Perceived-Burden, and performance.

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ORCID iDs
Marc E Betton https://orcid.org/0000-0001-9041-1521
J Robert Branston https://orcid.org/0000-0002-2332-2403

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