ACCOUNTING FOR THE FURNITURE, FITTINGS & EQUIPMENT RESERVE IN HOTELS

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JEL classification code: M41 – Accounting
Keywords: FF&E reserve accounting, hotel management contract
Acknowledgements: This paper has benefitted from anonymous referee comments provided in the course of the paper’s review process.
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Abstract

The somewhat idiosyncratic accounting procedure of maintaining reserves to fund furniture, fittings and equipment (FF&E) capital expenditure in hotels mediated by a management contract is examined. Five research objectives have been pursued: 1) ascertaining contrasting motives of owners and operators with respect to FF&E reserve accounting; 2) determining FF&E reserve accounting approaches adopted in hotels; 3) determining the amount assigned to FF&E reserves in hotels; 4) determining the sufficiency of FF&E reserves in hotels; and 5) appraising the degree of ease with which hotel operators can draw on FF&E reserve funds. These objectives have been pursued through the analysis of qualitative field data as well as survey data collected in Australia and New Zealand. The study’s more significant findings include the determination that, consistent with the wishes of operators, maintaining cash funded FF&E reserves is the most popular approach (particularly in small hotels). It has also been found that FF&E reserves are 40% underfunded. This deficiency beckons a question over whether hotel FF&E reserve accounting serves any meaningful role.
1. Introduction

This study examines furniture, fittings and equipment (FF&E) reserve accounting in hotels. Broad motivation for the study derives from the paucity of prior related accounting research. FF&E reserve accounting is a peculiar facet of capital budgeting systems in hotels that is often overlooked (Lynch, 2002) and not widely appreciated by accountants, as it is afforded minimal recognition in the normative literature. Given the profound organisational implications arising from capital budgeting, it is surprising that more research attention has not been directed to the specific workings of hotel capital budgeting related processes (Guilding & Lamminmaki, 2007; Jones, 1998). The significance of this view is underscored by Denton and Yiankes’ (2004) claim that the capital budgeting process has long been a pitfall and source of frustration for hotel owners.

Further resonance relating to this accounting literature shortcoming is provided by Collier and Gregory (1995) who identify three reasons motivating hotel focused capital budgeting research:

1. Hotel groups can be seen to be relatively unusual due to the dual nature of their activities involving property and management.

2. The hotel industry is characterised by high capital intensity, assets with a long life and negligible obsolescence if adequately maintained.

3. The hotel industry is a significant player in the large and expanding tourist industry.
Guilding (2003) notes a further, and potentially more significant, factor motivating hotel focused capital budgeting research. This relates to the proliferation of an idiosyncratic owner/operator structure in hotels governed by a management contract. Guilding (2003, p. 180) notes that this “schism between ownership and management signifies that unlike the context of most capital budgeting, where investment decisions are made within the confines of a single hierarchical organisation, two distinct organisations are frequently involved in hotel investment decision making processes”.

The majority of management contracts require the owner to establish a reserve for the replacement of FF&E (Haast, Dickson, & Braham, 2005; Rushmore, 2002). Operation of this reserve account has the potential to be a source of significant tension between hotel owners and operators (Australia New Zealand & Pacific Hotel Investment Conference, 2006). It is in light of this tension and the peculiarity of the FF&E reserve approach taken in hotel capital budgeting, that five research objectives have been pursued in this study. The study has been designed to:

1. ascertain the contrasting motives of owners and operators with respect to FF&E reserve accounting;
2. determine what types of FF&E reserve accounting approaches are being adopted in Australian and New Zealand hotels;
3. determine how much is being assigned to FF&E reserves in Australian and New Zealand hotels;
4. determine the adequacy of the amounts assigned to FF&E reserves in Australian and New Zealand hotels;
5. appraise the degree of ease with which hotel operators can draw on funds assigned to FF&E reserves in Australian and New Zealand hotels.
The remainder of the paper is structured as follows. The next section provides a review of the literature relating to hotel management contracts and FF&E reserve accounting. After this, the method and findings of the study’s exploratory interview phase are presented. Then the approach and findings of the study’s questionnaire survey phase are outlined. The paper’s final section provides a discussion and conclusion concerning the key observations provided in the paper.

2. Management contracts and the FF&E reserve literature review

Hotel management contracts give rise to an agency based owner/operator tension that is particularly manifest when owners are called upon to expend capital resources on their hotels (Beals & Denton, 2005; Corgel, 2007; Guilding, 2003; Schlup, 2004). A hotel management contract is a written agreement between a hotel owner and operator that involves the operator being appointed to manage the hotel in the name of, on behalf of, and for the account of the owner (Schlup, 2004). Although management contracts are not standardised (Johnson, 1999), the vast majority enable a hotel owner to retain legal ownership of the hotel site, building, plant and equipment, furnishings and inventories, while the operator assumes responsibility for managing hotel operations (Guilding, 2003). An important clause in the contract concerns the operator’s remuneration fee determination (Schlup, 2004). This remuneration is widely referred to as a ‘management fee’ (Rushmore, 2002). Three main approaches to management fee determination are found in practice: (1) a base fee only; (2) an incentive fee only; or (3) a base fee combined with an incentive fee (Goddard & Standish-Wilkinson, 2002). The combination of a base and incentive fee is the most common (Turner & Guilding, forthcoming). While the base fee can be a fixed amount, it is most usually computed as a
percentage of gross revenue. The incentive fee is typically tied to a gross operating profit (GOP) algorithm. Base fees can range between one and seven percent of gross revenue, while incentive fees can range between three and thirty percent of GOP (see Turner and Guilding’s [forthcoming] review of empirical research concerned with hotel operator management fee determination).

The use of hotel management contracts is widespread and has been increasing since the early 1980s (see Beattie, 1991; Contractor & Kundu, 1998; Dave, 1984; Dunning & McQween, 1981; Eyster, 1997b; Litteljohn, 1991; Litteljohn & Beattie, 1992). The significance of hotel management contracts are evident from Table 1 which highlights the incidence of the three main hotel operational forms adopted in North America, Europe and Asia. More recent evidence suggests that the use of management contracts has risen further to 55% in the U.S. (Smith Travel Research, 2003). Beals and Denton (2005), Panvisavas and Taylor (2006), and Corgel (2007) provide further recent testimony of management contracts’ increasing popularity.

INSERT TABLE 1 ABOUT HERE

Most hotel management contracts require that owners annually contribute to a reserve established to fund FF&E expenditure. This account pertains to all non-real estate capitalised hotel asset expenditures (Bader & Lababedi, 2007), i.e. the FF&E reserve is designed to fund periodic replacement of furniture, fittings, and equipment but not the replacement of major building components, such as roofs, elevators and chillers (Mellen, Nylen, & Pastorino, 2000).
The hotel operator typically administers the FF&E reserve. Deposits may be made either directly from the hotel’s cash flow or on a notional (non-cash) basis (Eyster, 1997b; Haast et al., 2005). It appears operators prefer cash reserves, while owners prefer notional reserves (Eyster, 1997b; Haast et al., 2005). This is because operators are wary of an owner being unable to fund budgeted FF&E projects. Owners, however, prefer to maintain control of their money and discretion over how their funds are invested (Haast et al., 2005). Under both approaches, a release of funds from the FF&E reserve is typically achieved only after owner approval (Aghion, Dewatripont, & Rey, 1994; Eyster, 1997a; Field, 1995; Guilding, 2003; Horwath & Horwath Ltd, 1988; Rushmore, 2002).

Due to conflicting motivations of owners and operators, allocations and disbursements to and from the FF&E reserve can be a source of significant friction (Australia New Zealand & Pacific Hotel Investment Conference, 2006). The amount to be allocated to the FF&E reserve is generally stipulated in the hotel management contract. The size of the accumulated balance in the FF&E reserve is moderated by the on-going rolling nature of FF&E capital expenditures (Rushmore, 2002). Owners generally require approval of competitive bids on all FF&E reserve funded requests from operators as well as the provision of a cost-benefit analysis where these expenditures rise above a negotiated threshold (Eyster, 1997b). The significance of FF&E expenditures is apparent from the fact that, at any time, a hotel’s FF&E can account for up to twenty-five per cent of the value of a hotel property (Rushmore & Baum, 2001). Table 2 highlights the importance of FF&E expenditure costs across different hotel classes on a per room per annum basis in the United States.

INSERT TABLE 2 ABOUT HERE
Determining what constitutes a sufficient allocation to the FF&E reserve represents a considerable challenge confronted by the hotel industry worldwide. Mellen et al. (2000, pp. 2-3), comment:

[The hotel] sector is grappling, to varying degrees, with the concept of how much … is required to maintain income producing real estate assets in good condition and how much is the right amount to set aside (as a reserve) … “The truth will set us free” [because] … If the true cost of owning real estate is established, then the yields to be earned on this most illiquid of investments can be predicted with greater accuracy which, in turn, will theoretically attract more capital to our industry.

Allocations to the FF&E reserve are typically based on a predetermined percentage of gross revenue (Rushmore, 2002). This percentage is normally low in a hotel’s early years and then ‘ramped up’ until around years five to seven of a property’s life, when a maximum stabilised percentage is reached (Eyster, 1997b; Rushmore, 2002).a The reason for ‘ramping up’ stems from the need to replace soft-goods around every five to seven years (Denton, 1998).

Since the 1930s, the general rule of thumb has been that annual contributions to the FF&E reserve should be set at around three per cent of annual gross revenues after ramping up (Brooke & Denton, 2007; Phillips, 2003; Ransley & Ingram, 2001). Reviews of hotel contracts suggest an increasing incidence of FF&E reserve usage (Barge & Jacobs, 2001; Eyster, 1988, 1997a, 1997b; Haast et al., 2005; Johnson, 1999) and that in many cases, more than the three per cent of annual gross revenue ‘rule of thumb’ is contributed to the FF&E reserve. This likely results from recognition that three per cent of revenue is insufficient to cover the true cost of FF&E expenditure, as it ignores plant life cycles, routine maintenance costs and hotel building ageing (Ferguson & Selling, 1985; Ransley & Ingram, 2001; Reichardt & Lennhoff, 2003). Brooke and Denton (2007) and Mellen et al. (2000) cite hotel property ageing as the predominant reason for FF&E reserve funding inadequacy.

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a Two less widely-applied approaches to determining the allocation of funds to the FF&E reserve are to use an annual fixed dollar amount or a negotiated yearly amount (Rushmore, 2002).
There also appears to be a growing realisation amongst owners that a strategy of limiting FF&E expenditure to three per cent of gross revenue can work against a hotel’s long-term profitability, value and star-rating (Bader & Lababedi, 2007; Stock, 2004). If funding is insufficient, FF&E projects that need to be completed might have to be deferred or eliminated (Bader & Lababedi, 2007; Beals & Denton, 2004; Crandell, 2002). Bankers and lenders are also beginning to impose covenants on owners, mandating that allocations to the FF&E reserve be set above the three per cent annual amount in order to protect their investment (Crandell, 2002; Denton, 1998; Wilder, 2004).

The actual amount allocated to the FF&E reserve can be contingent upon a number of factors that include: (1) the intensity of competition confronted; (2) the financial resources of the owner and/or operator; (3) the quality of the construction of the hotel; (4) the age of the property; (5) the location of the hotel; and (6) the philosophy and strategic approach taken by the stakeholders in the asset (Phillips, 2003). These factors appear to have contributed to lower FF&E reserve allocations in the Asia-Pacific region than in Europe and the United States (Barge & Jacobs, 2001). Public hotel organisations have also been found to spend slightly more on FF&E than private organisations (Brooke & Denton, 2007).

3. Exploratory Interview Phase

The first empirical data collection phase employed in pursuit of the study’s objectives involved the collection of exploratory interview data.

3.1 Exploratory Interview Method
Field study data was collected via the conduct of interviews with twenty Australian hotel industry experts between April and July 2007. All interviews were conducted in a face-to-face setting at the participants’ places of work. In order to provide scope for gauging a broad range of perceptions on the issues under examination, the interviewee sample represented six stakeholder groups: six asset managers, two hotel management contract lawyers, two hotel auditors, three hotel owner representatives, four hotel general managers and three hotel financial controllers.

The research team maintains close contacts with the hotel sector and three large hotel management consulting companies endorsed the study and provided names of individuals whose experience signified they were well placed to provide insights concerning the issues under examination. Also, the initial interviewees provided further strong leads enabling the research team to expand the potential interviewees approached. Upon completion of the interviews, the interviewees were able to provide informed suggestions concerning other hotel sector professionals who could usefully act as interview subjects. Twenty-five potential interviewees were contacted. Initial contact was achieved via the mailing of an interview package, which included information aimed at stimulating interest in the study and informing the potential participant that they would shortly be receiving a phone call from the research team to explore the possibility of their participation in the study. Twenty of the contacts agreed to be interviewed. Of the five contacts who did not wish to participate, three cited the problem of lengthy overseas commitments and two indicated a lack of available time.

A relatively flexible approach was adopted with regard to the development and delivery of the interview schedule. Given the nature of the data sought, and the limited degree of
academic understanding of some of the issues under examination, a semi-structured interactive data collection interview protocol was adopted. The inclusion of some open-ended questions was thought to be particularly pertinent to assist in reducing the potential of bias from the researchers imposing opinions, attitudes or answers onto the interviewees (Easterby-Smith, Thorpe, & Lowe, 2002). This approach also enabled clarification of ideas and opinions expressed by the interviewees wherever necessary. Accordingly, a relatively non-directive (Fontana & Frey, 1994) qualitative data collection technique was employed.

Interviewees were invited to talk about their ‘general’ perceptions of the hotel industry rather than limit their observations to insights secured during their current employ. Many of the interviewees had accumulated more than twenty-five years experience within the hotel industry, and the extent of job mobility in the hotel sector is notoriously high (Akrivos, Ladkin, & Reklitis, 2007; Ladkin & Riley, 1996; Riley & Ladkin, 1994). An attempt to require the subjects to restrict their observations to experiences secured with their current employer would have likely not been successful and sacrificed some of the valuable insights deriving from the subjects’ hotel sector related career acumen.

3.2 Exploratory Interview data findings

The exploratory interview data findings shed light on the following four of the study’s five objectives: 1) ascertaining the contrasting motives of owners and operators with respect to FF&E reserve accounting; 2) determining the types of FF&E reserve accounting approaches adopted; 3) determining the adequacy of the amounts assigned to FF&E reserves; and 4) appraising the degree of ease with which hotel operators can draw on funds assigned to
FF&E reserves. The findings presented in this section of the paper are structured according to these four objectives.

**Contrasting motives of owners and operators with respect to FF&E reserve accounting**

Strong affirmation of the view that operators tend to prefer cash FF&E reserve accounting was in evidence. It was also observed that owners dislike cash FF&E reserves because they view their money’s assignment in this manner as signifying poor deployment of capital. The comments of an asset manager encapsulate the essence of the contrasting perspectives:

> The operators want to see a physically cash funded FF&E reserve account so that they know when spending is needed and the owner doesn’t say ‘well we haven’t had a good year so we’ll delay the spending for two years’. This is because the operator is worried that the brand standard will slip if the hotel deteriorates below these standards and also, the operator could argue that the room rates could slip if, for example, he can’t deliver a five-star product if it’s a five-star hotel. These days the owners say, ‘well hang on a second, if I’ve got to put cash each year into a reserve that just sits there for six years before we need it - that’s stupid! That’s a complete waste of our cash flow resources! So I’ll tell you what, we’re a big owner and we’ve got assets worth $8 billion so we’re pretty good for the cash so you guys go ahead, we’ll do notional accounting for the FF&E reserve contribution but when we get to year six we’ll write the cheque’. See this is the old question about other people’s money. If the operator has a reserve fund sitting there with $5 million in it at any one time, they’re always going to find ways to spend it because they’re not spending their money; they’re spending the owner’s money. On the other hand, if the operator has to go and knock on the door of the owner and ask for a million bucks to spend on something, the owner says ‘I’m in control, I’ll tell you whether I want to give it to you, don’t tell me. I’ll tell you whether we’re going to spend the money, alright’.

Despite the claim that owners prefer the ‘no FF&E reserve’ approach, it appears that some owners see the FF&E reserve as desirable as it provides an important funding discipline. An owner representative, for example, commented:

> If you don't spend any money on FF&E, it would be like shooting yourself in the foot. I don’t like the idea of no reserve.

An asset manager also mentioned that running a hotel without an FF&E reserve would be like “digging your own grave”. Overall, most interviewees appeared to concur that operating with
some form of FF&E reserve, whether it be cash or notional, represents good hotel management practice.

**Types of FF&E reserve accounting procedures adopted**

Interviewee comments suggested that cases of hotels operating cash FF&E reserves, notional FF&E reserves and no FF&E reserve can all be found in Australia. It was evident that the incidence of ‘no reserve’ is much less than cash and notional reserves.

An unanticipated finding concerns the observation of two distinct approaches being taken with respect to cash funded FF&E reserves. The first method involves the owner maintaining a separate FF&E reserve bank account and making contributions to the reserve automatically at either monthly or quarterly intervals. If the owner fails to generate sufficient funds in a month or quarter to finance an instalment payment, then they would top-up the reserve using their private funds. An example of such an arrangement was found in a management contract produced by one of the interviewees. The contract included the following statement:

> The operator is entitled to pay from the operating account the required amount into the FF&E reserve or, if necessary, the owner must pay an amount equal to this contribution for each month.

Under this approach, the operator is typically the sole signatory of the bank account and has full control over the spending of accumulated reserve balances. For example, according to the management contract provided, the terms read:

> The operator may make any expenditure that they wish to make from the funds available in the FF&E reserve.

The second cash FF&E reserve accounting method has similar funding arrangements, however, the owner has discretion over the timing and extent to which the reserve is drawn
This represents a fundamental tightening of owner control over the reserve and can be expected to mitigate any operator propensity to act opportunistically in expending FF&E reserve funds. Most of the more recently drafted management contracts that feature a cash funded FF&E reserve extend expenditure discretion to the owner.

Under notional FF&E reserve accounting arrangements there is no cash movement, the owner simply provides for FF&E expenditure in the accounting records. It appears this approach was first applied in Australia in the early 1990s. This coincided with many hotels falling into receivership and a high incidence of owners failing to generate sufficient cash flow to fund the reserve. Interviewee comments suggest that very few Australian operators are willing to commit to ‘no FF&E reserve’ contracts. Where such contracts are negotiated, it is usually as a result of an operator holding considerable trust that the owner will spend the required amount on FF&E when needed. One of the lawyers interviewed commented:

If there is no FF&E reserve, it will usually be the case through the driving of a ruthless owner who pretty much tells the operator to get stuffed, but the owner in these situations is usually an owner that has a demonstrated ability to look after a hotel. The FF&E reserve is nothing more than a security policy for operator protection and if you are comfortable that the owner will protect your brand by spending the money, then the operator might be comfortable to go with a nil FF&E reserve.

It was also observed that where a cash or notional FF&E reserve approach is adopted, it can be established at an individual property level or under a portfolio arrangement. Under the portfolio arrangement, larger hotel owners who own a portfolio of hotels with a similar starrating may establish a pooled reserve that covers all the hotels that are managed by the same operator. Owners appear to be positively disposed to the portfolio reserve approach as it enables a more flexible approach to use of their money.

\[b\] In some situations, the owner allows the operator to retain sole signatory rights up to a certain dollar threshold, above which, the owner must co-sign cheques.
Adequacy of funds allocated to the FF&E reserve account

It appears most Australian hotel management contracts provide for an accelerating scale (known as ‘ramping up’) of FF&E reserve contributions during the first three to five years of a hotel’s life. Allocations to the reserve then level out to around three per cent of gross revenue. Higher reserve allocations of up to five percent of annual gross revenue are sometimes made for resort hotels where location specific factors, such as salt in the air for a beachside hotel, can contribute to relatively high FF&E depletion rates.

The interviewees held a consensus view that FF&E reserves are grossly under-funded in Australia and that the reserves are only intended to partially cover the true cost of FF&E replacements. Interviewees felt that a more accurate allocation to cover all necessary FF&E expenditure after the first three to five years of a hotel’s life is closer to five per cent of gross revenue and in resort hotels the figure can be closer to seven percent. One systemic reason for under-funding relates to the basis used to determine the quantum allocated to FF&E reserves.

One of the asset managers interviewed claimed:

> Whoever came up with this percentage of gross revenue method in the first place was an idiot because what has spending on FF&E got to do with gross revenue anyway? There is no natural correlation at all. I think these days it would generally be accepted that three per cent of gross revenue is not adequate, but I think a lot of owners would say ‘well to the extent that that it is not adequate, that's fine, because we will deal with that when we get to it.’

Another interviewee elaborated on a second shortcoming in the revenue base used to determine the amount assigned to FF&E reserves. He commented:

> A problem that you have in a place like Australia is that the room rates that we can charge are so abysmally low in comparison to other countries in the world. If that (name withheld) hotel in Sydney were transplanted to London, you would get $1,500 a night rather than $250 a night. If it were in Tokyo, you would get the same, exactly the same hotel! Your percentage of gross revenue would be lower because the amount of dollars that you need to maintain the hotel is still the same and has no relationship with the room rate of the hotel.
These comments suggest that the funds allocated to the reserve need to be calibrated in light of country and regional variables. This represents an obvious management challenge for international management companies. One of the legal interviewees commented:

A potential reason for the fixation on three per cent could be that most of the hotel industry is driven by international hotel companies. …. So what you’re trying to establish is international uniformity because if everybody got wind of the fact that in London the FF&E reserve is one per cent, yet in Sydney they are asking for five per cent, intuitively the guy in Sydney will think that he’s getting ripped off.

An owner representative added further insight to these issues by commenting:

I think derivation of the three per cent figure came from hotel operators, and it is American and it has been around for a long long time, for as long as I can remember and I think that it has just been a sort of thing that has become almost like the gospel. But I think that operators have always known that it is more than three per cent, but in the negotiation of contracts they don't want to disillusion or create concern with the owners.

The systematic underfunding of FF&E reserves can also be attributed to owners’ risk aversity, i.e. their desire to maintain control over funds and also FF&E spending in order to limit the influence exerted by operators over how owners’ monies are spent. Therefore, owners intentionally set FF&E reserve allocations low, so that if the operator requires additional funding that exceeds what is in the FF&E reserve, they can retain full control over the decision. Indeed, in such situations, to secure additional funding, the operator has to demonstrate that a higher level of expenditure is required. An asset manager noted:

Experienced owners know that three per cent will never be enough. If the true level is, say, six per cent, will an owner accept six per cent? Absolutely not! Because that gives control, or at least influence at the very least, to the operator who has no capital invested, and the owner will want to make those decisions themselves and not have them made for them by the operator.

A further reason for the continued under-funding of FF&E reserves is that although experienced owners understand that a three per cent FF&E reserve allocation is insufficient,
new buyers, particularly from overseas, can sometimes enter the hotel industry without an appreciation that more than three per cent is required. An asset manager commented:

I think if some new owners knew how much has to be spent, they’d be frightened and I don’t think you’d ever get another person investing in hotels again.

It also appears that although some hotel owners understand that three per cent of revenue is insufficient, they will persist with it, or attempt to reduce it as far as possible, due to a belief that it is saving them money. There appears to be a danger, however, that the three per cent of revenue allocation to FF&E reserve will condition less experienced owners to expect that FF&E expenditure should not surpass three per cent of revenue. Another asset manager commented:

I think that it is a very dangerous thought if owners think that only three per cent of gross revenue is required for future FF&E, because in reality the owner will have to spend much more than three per cent. I think that FF&E should be understood to be a fund of money that should “support” spending on FF&E, but will not be fully sufficient for all FF&E spending … If FF&E spending is insufficient, it can severely damage a hotel’s quality, credibility and reputation in the market.

A further reason for the continuing use of three per cent of revenue as the basis for determining FF&E reserve contribution levels, relates to hotel owners’ need to secure funding from banks. One of the legal interviewees commented:

If a higher number were used, the industry would suffer in terms of getting sources of finance to buy hotels, because the banks usually factor the three per cent figure into their calculations.

The fixation on three per cent could also be because it can be convenient for hotel owners when preparing for a sale. When hotels are to be sold, future FF&E requirements are typically incorporated into the valuation of the property at the rate at which FF&E reserve contributions are made. If this amount were raised, it would negatively affect the hotel’s appraised value. An owner representative commented:
My personal view is that valuers usually undervalue future FF&E requirements on hotels …. If a valuer uses four per cent instead of three per cent on a $500 million property, that is a big difference on the valuation.

Overall, the view of the interviewees was that most owners and senior managers recognise that FF&E reserves are grossly underfunded. Despite this, in the foreseeable future there does not appear to be any moves afoot that will signify a change from the broad universal rule of thumb of allocating three per cent of gross revenues to the FF&E reserve.

**Ease with which operators can access funds held in the FF&E reserve account**

The majority of more recently negotiated management contracts (particularly in four and five star hotels) create a legal obligation on the owner to release funds from the FF&E reserve to enable the operator to undertake ‘budgeted’ FF&E projects. This obligation arises from a brand standard clause which is designed to prevent an owner taking actions that will damage the perceived standing of an operator’s brand. Assessment of whether a hotel meets the brand standard is typically achieved via a quality audit conducted by the operator. If a hotel fails to pass a quality audit, and if rectification work to bring the hotel up to the brand standard is not undertaken, then the operator can seek to terminate the management contract.

Owner resistance to releasing funds from the FF&E reserve can often result from owner cash flow difficulties. Sometimes, however, it relates more to ill-informed owners refusing to spend the money as part of a cost saving regime. This type of scenario is apparent in the following comments provided by a financial controller:

> The owners of this hotel were very reluctant to spend funds from the FF&E reserve … The place was just shocking …. Eventually the owner spent the money, but it took a great deal of time and effort on our behalf to rebuild our relationship with the customers and to rebuild the credibility in the marketplace.
A fundamental challenge confronted by operators in enforcing their contractual right to the release of funds from the FF&E reserve concerns the fact that they generally have no recourse other than contract termination. A legal representative commented:

There is a definite contractual obligation on the owner to release funds from the FF&E reserve, but so what anyway! I mean, if the owner doesn't spend the money, what does the operator do? Do they walk away? … At the end of the day, all they can do is ultimately take their flag down, but why would they do that if they are making a million dollars a year from each property? Okay, the hotel might not be doing great things from your brand standard point of view, but if it's making money. The operator basically has no leverage if the owner doesn’t pay, regardless of what the management contract says.

These comments suggest that operators will seldom terminate a management contract solely on the grounds of the owner failing to release FF&E reserve monies. Seeking a contract termination would likely tarnish the reputation of an operator and jeopardise their capacity to secure an involvement with new owners. An interviewee commented:

The hotel market in Australia is so small and the owners and operators know each other, so if an operator does something that an owner doesn’t like, then everyone will find out and it's not so good for their reputation and they will inevitably lose business.

Due to the downside implications of terminating a management contract, operators tend to prefer to allow an owner to replenish and redeem their FF&E reserve funding at a later point in time. One of the asset managers encapsulated the essence of this view as follows:

Down at the real world on the subject, it comes down to cash flow. If there isn't enough cash flow, if cash is very tight, the owner will say to the operator ‘look I don't really care what is in the management contract or what you think, I mean, I might agree with you if we had more cash but I haven't so it's (i.e. the budgeted FF&E expenditure) going to have to be pushed back one year and we will review it in twelve months time’.

The degree to which owners can curb FF&E funded expenditure is limited by the fact that the operator is charged with preparing an annual budget and a rolling forecast for the next five years’ FF&E spending. Consistent with conventional budget preparation, for a hotel’s FF&E component of the annual budget, all heads of departments submit requisitions for proposed
FF&E projects. Conventionally, the next step is for the owner, operator, asset manager (if there is one), general manager and financial controller to review the department heads’ proposals and eliminate low priority projects as part of an FF&E rationalisation exercise. Upon finalisation of the budget, the owner typically commits to fund all budgeted projects from the FF&E reserve. If the owner refuses to fund a planned expenditure in the budget from the FF&E reserve, the operator is in a legal position to defy this decision by taking the money required out of the hotel’s cash flow. Operators are reluctant to take such a step, however, for fear of damaging their operational relationship with an owner.

If a new capital expenditure proposal were to arise during a year in which it has not been budgeted for, but warrants urgent attention, hotel owners generally require submission of a formal capital budgeting proposal by the operator. If approved, owners will often ask the operator to drop some other planned expenditure from the approved budget. If there are insufficient funds in the FF&E reserve to fund a new project, and if owners consider the project necessary, they can fund the difference from their own funds to avoid hindering a hotel’s performance. It was noted that in some cases, an arrangement was struck whereby the owner agreed to fund an FF&E reserve shortfall, but the operator had to commit to rectifying the shortfall from the subsequent year’s FF&E reserve allocation. Another approach that can be taken is for the owner to fund the shortfall, but for the operator to waive their management fees for a certain period of time. Another variation is that the operator can be asked by the owner to expense the FF&E expenditure (i.e. as repair and maintenance expense), which will mean that the operator will suffer a reduction in their incentive management fee for the year.

\[c\] Asset managers act on their owner’s behalf to oversee the operator (Armitstead, 2004; Swing, 2004).
Some interviewees expressed the view that many owners like to see the systematic charging of non-FF&E capital costs (known within the industry as ‘CapEx’) to the FF&E reserve so that the reserve becomes quickly exhausted. This approach provides the owner with greater control over how their money is spent, because the discretionary expenditure balance in the FF&E reserve would be greatly reduced. The propensity for such owner behaviour is likely to be heightened where an owner is preparing to sell the hotel. When owners take this approach, however, operators may indulge in a counter strategy by drawing on the repairs and maintenance budget to fund FF&E projects. A legal representative commented:

If you ever see the repairs and maintenance budget go above four per cent of gross revenue in a year, you know that basically the hotel is in trouble because the owner is likely putting CapEx through as an FF&E capital cost and the operator can’t survive like that, so they start expensing FF&E costs as repairs and maintenance expense …. You can do this by playing with the definitions (of accounting standards) to suit your needs.\(^d\)

A general manager supported this view by commenting:

Another way to get money out of the owners is to charge things to the repairs and maintenance budget and we do this quite often.

4. Questionnaire survey phase

4.1 Sampling procedure

Quantitative data were collected using a mailed questionnaire survey that was sent to general managers (GMs) in Australian and New Zealand hotels with a minimum of 20 rooms and a three star rating during May/June 2008. The 2006/2007 RACQ Hotel Accommodation Guide provided the sampling frame for the Australian sub-sample. The New Zealand sub-sample was compiled from two extensive online databases: ‘wotif.com’ and ‘asiahotels.com’. This

\(^d\) The average amount budgeted for repairs and maintenance differs from property to property but is typically in the range of three to four and a half per cent of annual gross revenue (Brooke & Denton, 2007).
provided a total sample size of 664 hotels, comprising 463 Australian hotels and 201 New Zealand hotels. It is only hotels that operate with a management contract that use FF&E reserves, however. As no database restricted to hotels operating with a management contract was found, the questionnaire was sent to all hotels in the sample frame and included a screening question that elicited the operating modal type for each respondent’s hotel.

Mailed packages sent to each hotel contained: a questionnaire; a covering letter; a flyer that contained a photograph and brief biographies of the researchers as well as an indication that the study had been endorsed by Jones Lang LaSalle®, Cushman and Wakefield® and Horwath HTL™; and a reply paid envelope. Surveys sent to 10 Australian hotels and 9 New Zealand hotels were returned marked “return to sender”. Additionally, 7 responses (4 from Australia and 3 from New Zealand) were received where the questionnaire was not completed but a note was attached indicating that it was against company policy to complete questionnaires.

Three weeks after the first mailing, a second mailout was sent to the entire sample frame (with the exception of those marked ‘return to sender’ and ‘contrary to company policy’ in the first mailing) to encourage non-respondents to complete the questionnaire (Smith, 2003).e Five responses (2 from Australia and 3 from New Zealand) to this second mailout were not completed but had a note indicating that it was against company policy to complete questionnaires. The number of letters marked ‘return to sender’ and ‘survey participation is against company policy’ from the first and second mailings signify a reduction in the initial sampling frame from 664 to 633 hotels. Two weeks after the second mailout, a number of hotel owner representatives that had been interviewed during the earlier empirical phase were contacted as they had indicated a willingness to assist in distributing the questionnaire to

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e The entire sampling frame was sent the second mailout, as full anonymity was extended to all respondents as part of a strategy designed to elicit a high response rate.
GMs with whom they had close contact. Distribution of the survey by these owner representatives generated a further 51 responses. Two weeks subsequent to the owner representatives’ distribution of questionnaires, the sample was contacted by email with the survey provided as an electronic attachment. This email encouraged GMs who had not already participated in the study to complete and return the questionnaire. Finally, two weeks after the email approach, random telephone calls were made to 31 GMs. The objective of these phone calls was threefold:

1. To thank the GM if they had already completed the survey;
2. For GMs who had not completed the survey, to ascertain why they had not participated in the study (as part of a test for non-response bias); and
3. To encourage the respondent to respond.

Eleven of the follow-up phone calls were to GM’s that had already completed the questionnaire. Of the remaining 20 phone calls, a variety of reasons were given for non-response. 12 (10 from Australia and 2 from New Zealand) indicated that they did not want to participate as it was against company policy (these 12 responses signify a further reduction in the sampling frame from 633 to 621), the other 8 respondents declared an intent to complete and return the questionnaire. None of the reasons provided gave rise to a concern for systematic non-response bias. The survey response pattern is recorded in Table 3. Of the 200 responses, 101 represented hotels operating with a management contract, which is a greater proportion (i.e. 50.5%) than Contractor and Kundu’s (1998) findings summarised in Table 1.

INSERT TABLE 3 ABOUT HERE
A second examination for non-response bias was undertaken by searching for any systematic differences between the first mailing respondents and the remainder of the respondents. To test for differences in categorical variables, the non-parametric Chi-square test for independence was used and revealed no statistically significant differences. The Mann-Whitney U Test was employed when inspecting the differences for variables measured using an ordinal scale. Although some differences were noted, the strength of the differences between the two groups (r value) was small. Finally, for variables measured using a ratio level scale, a t-test was used. No statistically significant differences were noted for these variables. These tests suggest that non-response bias does not constitute a strong threat to the validity of the study’s findings.

4.2 Variable measurement

The size of the annual FF&E reserve account allocation was measured by posing the question: “What percentage of gross revenue is allocated annually (after ramping up) to the FF&E reserve account in your hotel?” FF&E expenditure relative to revenue was gauged via the question: “What percentage of gross revenue would be required to cover the true cost of reasonable annual FF&E expenditure in your hotel (after ramping up)?”

Three questions designed to elicit the degree of ease with which operators can draw on FF&E reserves were developed for the questionnaire. For the first question, respondents recorded...

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\[f\] It was felt appropriate to combine the responses from the second mailing, industry distribution, emailing, and telephone contact into one group, as these respondents can all be seen to constitute slower respondents than the first mailing respondents. Also, an analysis of two groupings allows the application of stronger statistical tests for difference than would five categorical groupings.

\[g\] There could be a potential for bias in this measure as it was GM’s and not owner representatives that completed the survey questionnaire. Despite this cautionary note, there appears little reason for GMs to be motivated to bias their response and that they would have used their knowledge of the historical relationship between FF&E expenditure and gross revenue in their hotel when determining their answer to this question.
their degree of affirmation to the statement: “In my hotel it can be hard to get the owner to release funds from the FF&E reserve” on a Likert scale ranging from “1” (strongly disagree) to “7” (strongly agree). The second question asked: “How often does your hotel owner refuse to release funds from the FF&E reserve?” with responses provided on a Likert scale ranging from “1” (never) to “7” (frequently). The final question asked “How much do you have to pressurise your hotel owner in order to get funds released from the FF&E reserve?” and responses were provided on a Likert scale ranging from “1” (not at all) to “7” (very much). The questionnaire also included questions designed to determine each respondent’s hotel’s star rating and number of rooms as well as a question ascertaining the type of FF&E reserve accounting approach applied.

4.3 Questionnaire survey findings

Findings relating to the type of FF&E reserve account maintained by hotels represented in the survey sample are provided in Table 4. The Table records the incidence of each type of FF&E accounting procedure at the total sample level and also further analysis according to hotel size (based on number of rooms, the sample was split at the 33rd and 66th percentiles) and star rating. From the Table’s first data column it can be seen that 51.5% of the sample use cash based FF&E reserves, 35.4% use notional FF&E reserves and 13.1% use no FF&E reserve. While these figures are broadly in line with prior research, the findings suggest a slightly lower incidence of notional reserves and higher incidence of no FF&E reserve than what has been documented in the literature. The analysis of FF&E reserve accounting practice by room size provides further useful insight. It has been found that relative to large hotels, small hotels (measured by number of rooms) have a statistically significantly greater propensity to maintain a cash funded FF&E reserve while larger hotels have a statistically
significantly greater propensity to maintain notional FF&E reserves. A rationale for this observation is offered in the paper’s concluding section.

Table 5 presents data relating to the amounts allocated to FF&E reserve and also the quantum of FF&E expenditure. The Table’s first data row records the mean level, and standard deviation in parenthesis, of funds allocated to FF&E reserves (as a percentage of gross revenue). The Table’s second row of data records the mean level, and standard deviation in parenthesis, of the true cost of FF&E expenditure (as a percentage of gross revenue). For the total sample, the average percentage of gross revenue allocated to FF&E reserves is 3.02% (this signifies high convergence with the literature that widely cites a rule of thumb allocation of 3% of gross revenue). This is statistically significantly less than the total sample’s 5.03% mean score for the true cost of FF&E expenditure as a percentage of gross revenue. The analysis across different categories of hotel size and star rating fails to reveal any significant underlying thematic pattern with respect to the size of FF&E reserve allocations and expenditure levels. As one might have anticipated, it has been found that three star hotels allocate the lowest proportion of revenue to FF&E reserves (2.15%) and GMs in these hotels feel that the true cost of FF&E expenditure is lowest (3.38%), and five star hotels make the highest allocations to the reserve (3.48%) and GMs in these hotels feel that the true cost of FF&E expenditure is the highest (5.82%). The results of applying a matched pairs t-test of statistical difference between the amount assigned to the FF&E reserve and the amount actually expended on FF&E are provided in the Table’s final row. This row reveals that for all sub-samples appraised, the amount allocated to FF&E reserves is statistically significantly less than the actual amount of FF&E expenditure.
Using a format consistent with that adopted in Tables 4 and 5, Table 6 summarises the findings emanating from posing the three questions designed to determine the relative ease with which hotel operators can draw on funds assigned to the FF&E reserve. The mean score for the three measures all scored markedly below the midpoint of the 7 point Likert scales used. This signifies a degree of ease in drawing on the FF&E reserve, although the fact that two of the measures have yielded mean scores of 3.33 and 3.17 signifies that it would be misleading to suggest widespread unfettered access to the FF&E reserve by operators. With respect to the analysis by hotel size, statistically significant differences noted for two of the three measures suggest that operators experience a greater challenge in drawing down on FF&E reserves in smaller hotels.

5. Discussion and Conclusion

This study has sought to: 1) ascertain the contrasting motives of owners and operators with respect to FF&E reserve accounting; 2) determine what types of FF&E reserve accounting approaches are being adopted in Australian and New Zealand hotels; 3) determine how much is being assigned to FF&E reserves in Australian and New Zealand hotels; 4) determine the adequacy of the amounts assigned to FF&E reserves in Australian and New Zealand hotels; and 5) appraise the degree of ease with which hotel operators can draw on funds assigned to FF&E reserves in Australian and New Zealand hotels.
With respect to the study’s first objective, the interview findings provide further corroboration of the view that hotel operators prefer for FF&E reserve funds to be cash funded while owners prefer for them to be maintained as a notional account only. In light of this, it appears likely that in situations where owners have a relatively high locus of power in a relationship, there is a greater likelihood for an FF&E reserve fund to be notionally funded (and vice versa). In any subsequent research that builds on this study’s initiative, this proposition could be explored.

With respect to the study’s second objective, observations made in the interview phase supported the more analytically robust findings emanating from the survey findings with regard to the type and incidence of FF&E reserve accounting in hotels mediated by a management contract. The survey findings reveal that in Australian and New Zealand hotels mediated by a management contract, approximately half maintain a cash funded FF&E reserve, approximately a third maintain a notionally funded FF&E reserve and the remainder maintain no FF&E reserve. It has also been found that large hotels have a greater propensity to maintain a notionally funded FF&E reserve and a lower propensity to maintain a cash funded FF&E reserve. With respect to the locus of power issue just noted above, it is generally accepted that large owners hold more power (Bader & Lababedi, 2007; Beals & Denton, 2005; Haast et al., 2006). It appears reasonable to expect that larger owners have high representation amongst large hotels, as a result of their enhanced capital generation capacity. This suggests higher levels of ownership power in large hotels may contribute to the observed high incidence of notional funded FF&E reserves in large hotels. It could also be the case that in large hotels there is a high incidence of large owners contracting with large multinational operators and the extent of their joint venture dealings in a single country
signifies the development of a mature relationship supportive of the development of a high
degree of trust. In the context of a trusting relationship between the two contracting parties,
the operator’s perceived need for the FF&E reserve to be cash funded can be expected to
diminish. These conjectured rationalisations for the observed relationship between hotel size
and type of FF&E reserve maintained could be usefully further examined in subsequent
research.

With respect to the study’s third objective, data collected in the study’s survey phase reveal
that around 3% of revenue is being assigned to the FF&E reserve in Australian and New
Zealand hotels mediated by a management contract. This finding has high convergency with
what has been documented in the literature. Since the 1930s, the general rule of thumb has
been to allocate three per cent of annual gross revenue to the FF&E reserve (Brooke &
Denton, 2007; Phillips, 2003; Ransley & Ingram, 2001). It is notable that minimal variation
with respect to the amount allocated to FF&E reserves has been observed across the sample
when analysed by hotel size and star rating.

With respect to the study’s fourth objective, no prior work designed to empirically examine
the adequacy of the amount allocated to FF&E reserves has been found in the literature.
Mellen et al. (2000) claim that gaining an accurate understanding of what constitutes a
sufficient allocation to the FF&E reserve represents one of the biggest challenges facing the
hotel industry. Examination of the difference between the actual amounts allocated to FF&E
reserves and the amount expended on FF&E have revealed a deficiency in reserve funding.
Corroborative evidence for this finding was provided by observations made during the
interview phase of data collection. Several reasons for the on-going deficiency of FF&E
reserve funding that were advanced by the interviewees have been commented on. One
potential reason for FF&E reserve underfunding could stem from the desire of owners to maintain control over FF&E expenditure. In further research, an attempt could be made to appraise the incidence of owners attempting to charge non FF&E expenditure against the FF&E reserve account in an attempt to keep the FF&E reserve balance low.

With respect to the study’s fifth objective, observations made during the exploratory interview phase reveal that the majority of management contracts (particularly in four and five star hotels) create a legal obligation on the owner to release funds from the FF&E reserve to enable the operator to undertake budgeted FF&E projects. It was also noted that owner resistance to releasing funds from the FF&E reserve can arise, however, particularly where the owner is experiencing cash flow difficulties. Where this type of scenario arises, it can be problematical for the operator to manage, as there is no obvious recourse other than seeking contract termination. It was notable that the survey findings suggest that operators experience a greater challenge in drawing on FF&E reserves in small hotels. This might relate to a greater incidence of cash flow problems experienced by small hotel owners. It may also relate to the higher degree of trust characterising operator/owner relationships in larger hotels that was commented on above. Overall, the survey findings suggest a degree of operator ease in drawing on the FF&E reserve account, although it would be overstating the case if one were to suggest that all hotel operators have unfettered access to the FF&E reserve fund.

One of the study’s most significant and perplexing findings relates to the documented deficiency of allocations to the FF&E reserve. The finding is significant as no prior empirical study has attempted to document its existence. It is a perplexing finding as it calls into question whether any significant role is played by the continuance of FF&E reserve accounting. Given that in aggregate terms, FF&E reserves appear to be approximately 40%
underfunded (mean of 3.02% of gross revenue allocated to the reserve relative to actual FF&E expenditure levels of 5.03% of gross revenue), we are left to question whether the maintenance of deficient reserves provides substantive protection for an operator concerned that an owner might fail to adequately replenish FF&E assets. In essence, are the interests of an operator served any better in a hotel engagement where the reserve is maintained at a level that is significantly below what is required, compared to a hotel operator where there is no FF&E reserve fund at all? In both cases, reserve provisions are insufficient for an operator seeking to maintain their brand standard. In fact, one could argue that maintenance of an FF&E reserve at a level of 60% of what is required might be more dangerous to the operator’s interests, as it may encourage some owners to feel that an operator must provide a particularly strong justification for any proposed FF&E expenditure that is not supported by the balance in the reserve (this may particularly be the case for an owner with limited hotel ownership experience). It may also condition some owners towards an expectation that FF&E expenditure should be at a rate that is equivalent to 3% of revenue. This FF&E reserve deficiency issue calls into question whether the continuance of FF&E reserve accounting results more from a convention adhering culture than any operator perceived need, as systematic reserve underfunding signifies a compromised level of significance for the reserve.

Considered holistically, findings made in this study suggest that significant vagaries arise in connection with FF&E reserve accounting. These include owners trying to maintain the amount allocated to the reserve at levels that are inadequate to fund FF&E expenditures and also owners seeking to charge non FF&E expenditure against the FF&E reserve account. These possible actions suggest a high propensity for the reserve account to represent an accounting instrument that can be a source of tension between hotel owners and operators.
Given the increased protection that operators are seeking and achieving through the inclusion of brand standard clauses in hotel management contracts (Haast et al., 2005), we are left to question whether the maintenance of deficient FF&E reserve accounts constitutes an archaic facet of hotel management accounting.

When interpreting this study’s findings, it is important to bear several limitations in mind. With respect to the observations deriving from the interview data collected, care must be taken not to extrapolate beyond the sample of subjects interviewed. The interview sample size is insufficient to permit generalisability of the observations made. With respect to the survey phase of the study, more reliable findings would have resulted if data had been collected from hotel owners as well as operators. In further survey research, an attempt could be made to access owners, although it must be recognised that generating a sufficient sample size of owners is likely to be challenging. A further limitation is that while every care was taken to avoid the use of emotive terms during both phases of data collection, respondents may have suffered from social desirability bias when responding to opinion statements. Finally, the population for the questionnaire survey comprised all Australian and New Zealand hotels with 20 rooms or more and a minimum star rating of 3. Care should therefore be taken to avoid generalising observations made to lower quality or smaller hotels. The results should also not be generalised to hotels outside Australia and New Zealand. Notwithstanding these potential limitations, due to a lack of prior academic research attention in the area, the study would appear to provide a significant step forward in furthering our appreciation of issues arising in connection with hotel FF&E reserve accounting.

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h Social desirability bias is a term that is used to describe the tendency of respondents to reply in a manner that will be viewed favourably by others (McBurney, 1994).
References


Table 1
Percentage distribution of hotel operating modal types by major geographical region

<table>
<thead>
<tr>
<th>Modal choice</th>
<th>North America</th>
<th>Europe</th>
<th>Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner operator</td>
<td>20.92</td>
<td>34.80</td>
<td>45.33</td>
</tr>
<tr>
<td>Franchise agreement</td>
<td>38.31</td>
<td>28.66</td>
<td>12.45</td>
</tr>
<tr>
<td>Management contract</td>
<td>40.76</td>
<td>36.53</td>
<td>42.21</td>
</tr>
</tbody>
</table>

Adapted from: Contractor and Kundu (1998)

Table 2
Annual FF&E expenditure by hotel class in the United States

<table>
<thead>
<tr>
<th>Class of hotel</th>
<th>FF&amp;E expenditure per room per annum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxury</td>
<td>US$14,800 to US$32,300</td>
</tr>
<tr>
<td>Standard</td>
<td>US$10,400 to US$18,300</td>
</tr>
<tr>
<td>Economy</td>
<td>US$5,400 to US$9,900</td>
</tr>
</tbody>
</table>

Source: Rushmore (2002, p. 56)

Table 3
Summary of survey replies

<table>
<thead>
<tr>
<th>Country</th>
<th>Australia (n)</th>
<th>New Zealand (n)</th>
<th>Total (n)</th>
<th>% of total responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>First mailing</td>
<td>55</td>
<td>28</td>
<td>83</td>
<td>41.5%</td>
</tr>
<tr>
<td>Second mailing</td>
<td>36</td>
<td>11</td>
<td>47</td>
<td>23.5%</td>
</tr>
<tr>
<td>Industry distribution</td>
<td>41</td>
<td>10</td>
<td>51</td>
<td>25.5%</td>
</tr>
<tr>
<td>Emailing distribution</td>
<td>10</td>
<td>6</td>
<td>16</td>
<td>8%</td>
</tr>
<tr>
<td>Telephone</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>1.5%</td>
</tr>
<tr>
<td><strong>Total number of responses</strong></td>
<td><strong>145</strong></td>
<td><strong>55</strong></td>
<td><strong>200</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td><strong>Total number in sample</strong></td>
<td><strong>437</strong></td>
<td><strong>184</strong></td>
<td><strong>621</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total response rate</strong></td>
<td><strong>33.18%</strong></td>
<td><strong>29.89%</strong></td>
<td><strong>32.21%</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Hotels with a management contract</strong></td>
<td><strong>85</strong></td>
<td><strong>16</strong></td>
<td><strong>101</strong></td>
<td><strong>50.5%</strong></td>
</tr>
</tbody>
</table>
Table 4
Analysis of FF&E reserve account usage

<table>
<thead>
<tr>
<th>Type of FF&amp;E reserve</th>
<th>Cash</th>
<th>Notional</th>
<th>No FF&amp;E reserve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel size (number of rooms) Star-rating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 - 148</td>
<td>149 - 224</td>
<td>&gt; = 225</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>38.9%</td>
<td>55.6%</td>
<td>13.1%</td>
<td></td>
</tr>
<tr>
<td>45.5%</td>
<td>44.1%</td>
<td>12.1%</td>
<td></td>
</tr>
<tr>
<td>40.0%</td>
<td>44.1%</td>
<td>12.1%</td>
<td></td>
</tr>
<tr>
<td>20.0%</td>
<td>44.1%</td>
<td>12.1%</td>
<td></td>
</tr>
<tr>
<td>28.1%</td>
<td>44.1%</td>
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</tr>
<tr>
<td>20.0%</td>
<td>44.1%</td>
<td>12.1%</td>
<td></td>
</tr>
<tr>
<td>10.0%</td>
<td>21.9%</td>
<td>5.6%</td>
<td></td>
</tr>
<tr>
<td>* A Chi-square test for independence (with Yates Continuity Correction) indicated a significant difference in the use of cash and notional FF&amp;E reserves between small (20 - 148 rooms) and large (&gt; = 225 rooms) hotels, χ² (1, n = 58) = 4.61, p = 0.032, phi = 0.317. Small hotels use cash FF&amp;E reserves significantly more than large hotels and notional FF&amp;E reserves significantly less than large hotels.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5
Mean scores for FF&E reserve allocation and expenditure levels analysed by hotel size and star rating

<table>
<thead>
<tr>
<th>Star-Rating</th>
<th>Hotel size (number of rooms) Star-rating</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>Cash</td>
<td>2.87</td>
<td>0.67</td>
</tr>
<tr>
<td>4</td>
<td>1.9</td>
<td>0.32</td>
</tr>
<tr>
<td>3.5%</td>
<td>0.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>44.1%</td>
<td>70.0%</td>
<td>15.2%</td>
</tr>
<tr>
<td>12.1%</td>
<td>3.08</td>
<td>3.04</td>
</tr>
</tbody>
</table>

Mean actual allocation to FF&E Reserve as % of gross revenue

<table>
<thead>
<tr>
<th>Star-Rating</th>
<th>Hotel size (number of rooms) Star-rating</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4.5</td>
<td>3</td>
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<tr>
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<tr>
<td>4</td>
<td>1.9</td>
<td>0.32</td>
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<td>0.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>44.1%</td>
<td>70.0%</td>
<td>15.2%</td>
</tr>
<tr>
<td>12.1%</td>
<td>3.08</td>
<td>3.04</td>
</tr>
</tbody>
</table>

Mean true cost of FF&E as % of gross revenue

<table>
<thead>
<tr>
<th>Star-Rating</th>
<th>Hotel size (number of rooms) Star-rating</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>Cash</td>
<td>2.87</td>
<td>0.67</td>
</tr>
<tr>
<td>4</td>
<td>1.9</td>
<td>0.32</td>
</tr>
<tr>
<td>3.5%</td>
<td>0.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>44.1%</td>
<td>70.0%</td>
<td>15.2%</td>
</tr>
<tr>
<td>12.1%</td>
<td>3.08</td>
<td>3.04</td>
</tr>
</tbody>
</table>

t-value for difference between true cost and FF&E actual reserve allocation

<table>
<thead>
<tr>
<th>Star-Rating</th>
<th>Hotel size (number of rooms) Star-rating</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>Cash</td>
<td>2.87</td>
<td>0.67</td>
</tr>
<tr>
<td>4</td>
<td>1.9</td>
<td>0.32</td>
</tr>
<tr>
<td>3.5%</td>
<td>0.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>44.1%</td>
<td>70.0%</td>
<td>15.2%</td>
</tr>
<tr>
<td>12.1%</td>
<td>3.08</td>
<td>3.04</td>
</tr>
</tbody>
</table>
Table 6

<table>
<thead>
<tr>
<th>Star-Rating</th>
<th>Hotel Size (number of rooms)</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.00-3.27</td>
<td>5</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>3.28-3.57</td>
<td>4.5</td>
<td>3.5</td>
<td>2.24</td>
</tr>
<tr>
<td>3.58-3.64</td>
<td>4</td>
<td>3.64</td>
<td>2.57</td>
</tr>
<tr>
<td>3.65-3.94</td>
<td>3.5</td>
<td>3.94</td>
<td>2.72</td>
</tr>
<tr>
<td>3.95-4.20</td>
<td>3.5</td>
<td>4.20</td>
<td>3.07</td>
</tr>
<tr>
<td>4.21-4.47</td>
<td>3.5</td>
<td>4.47</td>
<td>3.00</td>
</tr>
<tr>
<td>4.48-4.74</td>
<td>3.5</td>
<td>4.74</td>
<td>3.00</td>
</tr>
<tr>
<td>4.75-5.00</td>
<td>3.5</td>
<td>5.00</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Each cell records mean score and standard deviation in parenthesis.

A: 7 point Likert scale: 1 = Strongly disagree; 7 = Strongly agree
B: 7 point Likert scale: 1 = Never; 7 = Frequently
C: 7 point Likert scale: 1 = Not at all; 7 = Very much

* t-test statistically significant difference between small hotels (20 – 148 rooms) and large hotels (>=225 rooms)

** t-test statistically significant difference between small hotels (20 – 148 rooms) and large hotels (>=225 rooms)

p < 0.1.

** t-test statistically significant difference between small and large hotels p < 0.05.