Learning under pressure: Learning strategies, workplace climate, and leadership style in the hospitality industry.

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Abstract: In this study we explored the relationship among learning strategies, leadership style, and work environment for middle managers in the hospitality industry. We found an association between learning strategy and workplace climate; we also found an association with leadership style, but to a lesser extent. In the hospitality industry, a deep learning strategy was linked to a heavy workload, while surface (disorganised) learning strategies were associated with a transactional (reward oriented) leadership style. These somewhat surprising findings suggest the need for further research into the conditions under which workload and leadership style can enhance a (deep) strategy to learning.

Keywords: learning strategy; workplace climate; leadership style; hospitality industry; middle managers.

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1   Introduction

Professional development for employees is a key factor to success in organisations (Winslow and Bramer, 1994). Attracting, retaining, and training employees are issues of

strategic importance (Probst and Buchel, 1997). As a consequence, professional learning has received considerable attention in consultancies, human resource management, and performance improvement (i.e., ASTD, 2006). As Hoeksema et al. (1997) note, however, much of the literature on professional learning is confined to and specifically focused on management development, intended only for those with high potential and upper segments of personnel development. Far too little is known about how middle managers acquire the necessary competence to perform successfully in the workplace, or how they improve their competencies. Especially in the service industry, middle managers must perform under high pressure and tight time constraints, which often leave little opportunity for reflection and inquiry to scrutinise and improve their performance (Baum, 2002; Kessels and Harrison, 2004; Eraut, 1997). In fact, the service industry is among the sectors that spends the least on performance improvement and human resource development (Baum, 2002).

This study aims to explore how middle managers in this industry can learn under actual workplace conditions. Middle managers function as intermediaries between organisational goals and their deployment in the workplace. Since middle managers are expected to bridge their work conditions by using the strategic goals of supervising management (Bass and Avolio, 1993; Wenger, 2003), their perceptions of workplace climate and leadership style may have profound impact on their approaches to learning (Arnold, 2004; Kessels and Harrison, 2004) To focus our inquiry, we conducted this study in the hospitality sector, which is considered especially relevant for gauging learning strategies, since, according to Baum (2002, p.344), hotel management is "one of the fastest growing sectors in the economy … and faces real challenges in matching its skills requirements to the changing labour market".

1.1 Learning strategies in the workplace

Although learning is a key tool in the strategic human resource development of many organisations (Probst and Buchel, 1997), only few empirical studies have paid attention to the learning strategies adopted there. In particular, studies in higher education have shown (Marton and Säljö, 1976; Nijhuis et al., 2005; Prosser and Trigwell, 1999) how learning strategies differ among students and impact task behaviour. Marton and Säljö (1976) assumed that learning strategies are not stable psychological traits but can be adjusted to task requirements. A learning strategy is a collection of specific motives and approaches to fulfil particular learning goals. Most notably, three strategies have been identified (Marton and Säljö, 1976; Biggs, 1985, 1987; Entwistle and Ramsden, 1983):

- *Deep learning strategy.* In which the learner tries to understand and recognise information that is perceived. The learner is intrinsically motivated, eager to understand underlying arguments, and to relate old and new knowledge.

- *Surface learning strategy.* It refers to a learner with a surface learning strategy that puts as little energy as is absolutely necessary for learning to complete a task. This learning strategy is aimed at reproducing knowledge without any intention to understand.

- *Achievement learning strategy.* The learner who is motivated by competition uses an achievement strategy. There is no emphasis on understanding information, so long as the strategy achieves the desired result.

Based on Biggs' conceptualisation of learning strategies, which originated in the context of higher education, Kirby et al. (2003) proposed three approaches to measure employee workplace learning strategies.

- A deep learning strategy in which the employee as a learner is intrinsically motivated to plan and analyse learning goals.

- A surface-rational learning strategy that reflects a preference for orderly, accurate, and detailed work.

- A surface-disorganised learning strategy that is a combination of surface motives and a non-academic orientation (as described by Entwistle and Ramsden, 1983). In the context of workplace learning this represents disaffection with the work environment and a sense of incompetence in executing work tasks.

Although, as Biggs (1993) suggests, there can be a predisposition to either a deep or a surface learning strategy, a preferred learning strategy can be modified by the work environment and particular tasks (Ramsden, 1984; Biggs, 1987). In fact, as several studies have shown, differential effects of the task environment may affect learning strategies (e.g., Nijhuis et al., 2005; Kirby et al., 2003). Our study uses Biggs' conceptualisation of learning strategies to measure employee workplace learning. Its aim is to gauge whether the identified learning strategies are applicable to learning in the workplace. As other studies have indicated, some learning strategies may work in the workplace, while others do not. A study by Van der Sluis et al. (2002) indicated that young, highly talented managers primarily learn by reflecting on their work experience and following a mixture of emergent (unplanned) and deep learning (meaning-oriented) strategies. A study by Hoeksema et al. (1997) concluded that a surface learning strategy is preferred in highly demanding contexts, while a deep learning strategy evolves best in poorly structured contexts which require 'looking around' to focus on emergent issues. Middle managerial jobs are often highly demanding, task specific, and poorly structured; a middle manager has to perform many different tasks and comply with inflexible demands. The study by Hoeksema et al. (1997) shows that a surface learning strategy is preferred in such highly demanding contexts. These findings imply that deep learning is not likely to occur while working under pressure (Eraut, 1997).

1.2 Working conditions and leadership style as they influence learning

Research on student learning strategies has shown that perception of the learning environment, rather than the task itself, affects student learning most directly (e.g., Prosser and Trigwell, 1999; Nijhuis et al., 2005). Therefore, it would be of interest to explore the extent to which employees' perception of their work environment influences their learning strategies. A few studies on workplace learning have addressed this question. Van der Sluis and Poell (2002) studied learning opportunities in the workplace. Favourable conditions were associated with: dealing with innovations, high levels of responsibility, non-authority relationships, and a high degree of support experienced on the job. The results of this study in an MBA setting indicate that perceptions of learning opportunities depend to a significant extent on a deep learning strategy. Kirby and colleagues (Delva et al., 2002, 2004; Kirby et al., 2003) studied learning conditions in the workplace and found that favourable conditions were characterised by a high quality of supervision, independent choice by employees,

and a heavy workload (Kirby et al., 2003). Furthermore, Kirby et al. (2003) found that a deep learning strategy shows a positive relationship to leadership style and independent choice. Moreover, a negative influence was found between a surface-disorganised learning strategy and leadership style and independent choice. This was confirmed in a study by Delva et al. (2004) using medical clerks. Thus, an employee who experiences no positive contacts with his or her manager and perceives few possibilities to make choices will be more likely to adopt a surface-disorganised learning strategy. This strategy is characterised by a disaffection for the work environment and a sense of incompetence in executing work tasks. Both studies (i.e., Kirby et al., 2003; Delva et al., 2004) found that employees experiencing a heavy workload and working under pressure will likely have a surface-disorganised learning strategy. In addition, these studies found a significant negative correlation between workload and a surface rational learning strategy.

In the studies by Kirby et al. and Van der Sluis et al., leadership style is also identified as an important factor in the workplace climate for enhancing employee learning and development (Gardner et al., 2005). How employees are supported by their supervisors in their efforts to learn was studied by Koene et al. (2002) in a study of Dutch supermarkets. Their study points out the importance of leadership styles for supporting, inspiring, and encouraging employees. A study by Coetzer (2003) in small companies found work related learning by employees to be influenced by their managers' leadership style, both implicitly and explicitly. A positive relationship between a supportive leadership style and employee motivation to learn was also found by Montes et al. (2005).

Bass (1998) and Avolio et al. (1999) describes the Full Range Theory (FRT) and identifies three leadership styles (Bass, 1985):

- *Transformational leadership style.* The supervisor motivates employees to reach higher personal goals with respect to the organisation's shared goals. Such a manager is charismatic and social (Antonakis et al., 2003). A transformational leadership style contains four subscales: inspiration, influencing from ideals, intellectual stimulation, and individual consideration (Bass, 1985; Bass and Avolio, 1993).

- *Transactional leadership style.* These managers fulfil their obligations solely by creating good working situations, without paying attention to meeting goals (Antonakis et al., 2003). A transactional leader works according to the principle: for each good performance the employee will receive a sufficient reward (De Hoogh et al., 2004). A transactional manager may create a workplace climate with an average level of supervision.

- *Laissez-faire leadership style.* There is hardly any supervision by a manager who uses a laissez-faire way of managing. The manager chooses not make any decisions or use authority (Antonakis et al., 2003). Such a manager only supervises when serious or chronic problems occur (De Hoogh et al., 2004).

The FRT model considers the transformational leadership style as most active, followed by a transactional leadership style; laissez-faire is considered the least active style (De Hoogh et al., 2004). A transformational style seems to fit well in a workplace climate that has a deep learning strategy and a high level of supervision (Kirby et al., 2003).

1.3   Our research problem

Despite the importance of deploying deep learning strategies in dynamic organisations (Nonaka and Takeuchi, 1994), only a few studies have linked workplace conditions and leadership style to gauge the learning strategies adopted by employees. Studies relating workplace conditions to learning strategies have been conducted predominantly in the medical sector (Kirby et al., 2003; Delva et al., 2004) and in commercial financial services (Kirby et al., 2003). Given the results of Hoeksema et al. (1997) and Kirby et al. (2003), whether deep learning is possible while working under pressure has not yet been resolved. To investigate this, we studied middle managers in very demanding task contexts, more specifically, the hospitality sector. Such employees are of interest because they work under pressure yet at the same time experience a high demand to learn in and from their practice. This sector provides a fruitful case environment to study learning strategies and their relationship to workplace climate and leadership style because the hospitality sector, as a growing market (employing up to 19% of the global workforce), is subject to ongoing restructuring and organisational change, leading to increasing demand for learning and development on the part of middle managers (Baum, 2006). In this context we addressed the following research problem: is there a relationship between middle managers' leadership style and their work climate and learning strategies?

2   Method

2.1   Sample and procedure

Our study was conducted in the hotel industry. Given that differences in location, size, and hotel ownership affect job content and skills (Baum, 2002), we tried to limit diversity and selected hotels for our study that are located in the *Randstad* area in the Netherlands (i.e., rural locations), which have a minimum of 50 rooms (i.e., size) and at least a three-star classification (i.e., hotel quality). In this typical setting, we randomly selected 33 hotels to study middle managers: i.e., employees who operate in a hectic work environment. As front-line managers, they are faced with diverse problems and responsibilities for service to demanding guests. According to Hoeksema et al. (1997) the middle manager's job can be characterised as having a low level of specialisation and a high level of integration. They must take into account interdependencies among various tasks and coordinate among several functions.

In conducting our study, initial contacts were made with the Human Resource Management Office of the intended sample hotels ($n = 33$), seeking permission to conduct our inquiry locally. Twenty hotels accepted the invitation to participate in the study, of which 12 actually participated. The main reason for not participating was lack of time (because it was high season) and the pressure of work. Among the hotels that did participate, six were located in cities and six in the countryside. Two hotels had a three-star rating, six hotels a four-star rating, and the remaining four hotels had five stars. This selection of hotels represents an adequate sample of hotels in the selected area. Once permission was given, questionnaires were distributed to be completed by middle managers. The questionnaires were filled out by 30 middle managers (70% were women). Ten participants worked on the front line, 16 behind the scenes, and the remaining 14 had

mixed responsibilities. The average duration in their present work environment was from 13–18 months.

Middle managers received questionnaire instruments either by post or e-mail, and after two weeks were prompted to submit the questionnaires. To decrease the likelihood of receiving socially desirable rather than honest answers, middle managers returned the questionnaires without involving their superiors.

2.2 Instruments

The decision to use questionnaires rather than interviews was motivated by the nature of the information needed, i.e., specific answers to benchmark results against earlier research. To measure middle managers' learning strategies, the Approaches to Learning At Work Questionnaire (AWQ) was used (Kirby et al., 2003). The Workplace Climate Questionnaire (WCQ) (Kirby et al., 2003) was given to gauge perception of workplace climate. The Multifactor Leadership Questionnaire (MLQ) by Avolio et al. (1999) was used to measure the leadership style experienced by a middle manager. The AWQ and the WCQ were translated into Dutch. A pilot was conducted to test the questionnaires, which resulted reformulating some questions. Since this was the first time these questionnaires were used in the hospitality industry, a coding category of 'not applicable' was added to questionnaire items, because some questions might not fit this sector. For the MLQ, the Dutch version constructed by De Hoogh et al. (2004) was used.

2.2.1 Approaches to learning At Work Questionnaire

This questionnaire was adapted by Knapper (1995) from the Strategies to Studying Inventory (Entwistle and Ramsden, 1983). Questions originally appropriate for an academic setting were adapted by Knapper to make them applicable to workplace settings, and later refined by Kirby et al. (2003). This 28-item version was translated for use in the current study. The questionnaire consists of three scales: Deep learning scale (nine questions), Surface-disorganised learning scale (nine questions), and Surface-rational learning scale (ten questions). Middle managers had to respond to a five-point Likert-type scale, ranging from (1) definitely disagree to (5) definitely agree. Cronbach alpha reliability coefficients for the three scales are reported in Table 1. For comparison, we also provide reliability coefficients for scales in the Kirby et al. (2003) study.

2.2.2 Workplace Climate Questionnaire

The Course Perceptions Questionnaire (CPQ) (Entwistle and Ramsden, 1983) applied in school settings was adapted by Knapper for use in organisations (Kirby et al., 2003) to the WCQ The 15-item version was used for this study. The WCQ consists of three scales: the Good Supervision scale, which measures supervision strategy by superior managers; the Workload scale, which collects perceptions on the extent of pressure employees experience; and the Choice independence scale, which indicates freedom of choice and independence in task performance. Responses are given on a five-point Likert-type scale with the following choices: (5) definitely agree, (4) somewhat agree, (3) neither agree nor disagree, (2) somewhat disagree, and (1) definitely disagree. Cronbach alpha

reliability coefficients for the different scales of the WCQ are presented in Table 1 as well. For benchmark reasons, we also provide the reliability coefficients of the scales in the Kirby et al. (2003) study.

Table 1   Reliability coefficients of questionnaire instruments used

Approaches to learning at the workplace, translation of the AWQ (compared to Kirby et al. (2003))

Learning strategy	*Alpha Current study N = 30*	*Alpha Kirby et al. (2003) N = 236*
1 Deep learning strategy nine items	0.52	0.72
2 Surface-disorganised learning strategy	0.72	0.73
3 Surface-rational learning strategy ten items	0.74	0.75

Work climate questionnaire, translation of the WCQ (compared to Kirby et al. (2003))

	Alpha Current study N = 30	*Alpha Kirby et al. (2003)*
'Good Supervision' (5 items)	0.95	0.86
Workload (4 items)	0.62	0.77
Choice independence (5 items)	0.71	0.79

Multifactor Leadership Questionnaire translation of the MLQ) used in the current study compared to De Hoogh et al. (2004)

	Alpha Current study N = 30	*Alpha De Hoogh et al. (2004) N = 92–94*
1 Laissez-faire style (4 items)	0.68	0.47
2 Transactional style (9 items)	0.47	0.82
3 Transformational style (15 items)	0.95	0.89

2.2.3   Multifactor Leadership Questionnaire

Experienced leadership style was measured by the MLQ. This questionnaire was completed by middle managers to indicate the leadership style they experienced (De Hoogh et al., 2004). The original MLQ consists of 40 items. Four items measure a laissez-faire leadership style, a transactional leadership style is gauged by nine questions, and 15 items are used to measure a transformational leadership style. Reliabilities of the scales are given in Table 1 and compared to those in the De Hoogh et al. study (2004). Overall, reliabilities of the questionnaire scales are satisfactory and do not deviate significantly from those found in earlier studies.

2.3   Method of analysis

*D*ata were inspected for missing values. Reliability of scales after translation from English to Dutch was performed on each scale. To analyse our research problem, correlational analyses and multiple regression analyses were conducted.

3 Results

To obtain an overview of the hypothesised relationships between

- experienced leadership style and workplace climate
- experienced workplace climate and learning strategy
- experienced leadership style and learning strategy, scale descriptives were established.

These are provided in Table 2.

Table 2 Mean and standard deviations for measured variables $n = 30$

	Means	s.d.
Learning strategy		
Deep learning strategy	3.72	0.38
Surface disorganised learning strategy	2.00	0.49
Surface rational learning strategy	3.35	0.51
Work environment		
High level of supervision	3.60	1.04
Workload	3.00	0.65
Choice independence	3.33	0.71
Leadership style		
Laissez-faire style	2.25	0.96
Transactional style	2.67	0.54
Transformational style	3.47	0.89

3.1 Workplace climate and leadership style

Correlations between workplace climate and leadership style are presented in Table 3.

Table 3 Correlation coefficients for perception of workplace climate and leadership styles

N = 30	*2*	*3*	*4*	*5*	*6*
1 'Good supervision'	0.340	−0.280	−0.526**	0.050	0.871**
2 Choice independence		−0.235	−0.028	0.460	0.171
3 Workload			0.374*	−0.075	−0.494**
4 Laissez-faire style				−0.35	−0.719**
5 Transactional style					0.069
6 Transformational style					

*Correlation significant at 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

Good supervision shows a strong negative relationship to a laissez-faire leadership style ($r = -0.53$, $p =< 0.01$). A transformational leadership is negatively associated with a heavy workload ($r = -0.49$, $p =< 0.01$). However, a laissez-faire leadership style is positively associated with a heavy workload ($r = 0.37$, $p =< 0.05$). A transactional

leadership is associated with choice independence ($r = 0.46$, $p =< 0.05$). No significant inter-correlations were found among leadership styles, except for a negative correlation between a laissez-faire style and a transformational style ($r = -0.72$, $p =< 0.01$).

Regression analysis (See Table 4) indicates that the perception of good supervision is significantly influenced by leadership style, more specifically, a transformational leadership style influences the perception of good supervision – explained variance: 75%. Both workload and choice independence are influenced by leadership style (16% of explained variance). We found choice independence significantly influenced by transactional leadership style.

Table 4   Regression analyses with dependent variables: workplace climate

Independent variable: leadership style	Beta	T	SigT
For good supervision			
Laissez-faire leadership style	0.208	1.574	0.128
Transactional leadership style	–0.013	–0.142	0.888
Transformational leadership style	1.022	7.702	0.000
$R = 0.883$, $R^2 = 0.754$, $F3, 26 = 30.704$, $p = 0.000$			
For workload			
Laissez-faire leadership style	0.040	0.163	0.872
Transactional leadership style	–0.042	–0.246	0.807
Transformational leadership style	–0.462	–1.884	0.071
$R = 0.497$, $R^2 = 0.160$, $F3, 26 = 2.835$, $p = 0.058$			
For choice independence			
Laissez-faire leadership style	0.185	0.754	0.458
Transactional leadership style	0.448	2.624	0.014
Transformational leadership style	0.273	1.113	0.276
$R = 0.497$, $R^2 = 0.161$, $F3, 26 = 2.848$, $p = 0.057$			

3.2   *Workplace climate and learning strategy*

Correlations and multiple regression analyses were established to investigate relationships between workplace climate and learning strategy (see Table 5).

Table 5   Correlation coefficients for learning strategy and perceptions of workplace climate

N = 30	2	3	4	5	6
1 Deep learning strategy	–0.333	0.071	0.026	0.362*	0.220
2 Surface disorganised learning strategy		0.242	–0.260	–0.139	0.050
3 Surface rational learning strategy			–0.259	0.243	–0.164
4 Good supervision				–0.350*	0.340
5 Workload					–0.233
6 Choice independence					

*Correlation is significant at the 0.05 level (2-tailed).

Correlations among all three dimensions of workplace climate were not significant. Middle managers' workload perception is positively related to a deep learning strategy ($r = 0.36*$). However, good supervision and choice independence show no relationship to learning strategies of middle managers.

Regression analysis (see Table 6) shows that a deep learning strategy is significantly predicted by workplace climate (adjusted $R^2 = 0.147$). A surface-disorganised learning strategy, on the contrary, is hardly explained (4.2% of variance) by the perception of workplace climate. A surface-rational learning strategy is not predicted by workplace climate (adjusted R square $= -0.01$). Multiple regression analysis shows that the perception of a heavy workload accounts for adoption of a deep learning strategy ($p =< 0.05$). In other words, our findings indicate that the heavier the workload is perceived, the more middle managers exercise a deep learning strategy.

Table 6 Regression analyses for dependent variable: learning strategy

Independent variable	Beta	T	SigT
For deep learning strategy			
Good supervision	0.086	0.452	0.655
Workload	0.462	2.499	0.019
Choice independence	0.298	1.622	0.117
$R = 485$, $R^2 = 0.235$, $F3, 26 = 2.662$, $p=0.069$			
For surface-disorganised learning strategy			
Good supervision	–0.388	–1.917	0.066
Workload	–0.246	–1.256	0.220
Choice independence	0.124	0.637	0.530
$R = 0.375$, $R^2 = 0.042$, $F3, 26 = 1.422$, $p = 0.259$			
For surface-rational learning strategy			
Good supervision	–0.179	–0.964	0.395
Workload	0.165	0.821	0.419
Choice independence	–0.064	–0.322	0.750
$R = 0.311$, $R^2 = -0.007$, $F2, 26 = 0.930$, $p = 0.440$			

3.3 Leadership style and learning strategy

Correlations between leadership styles and learning strategies were gauged (see Table 7). Only one significant relation was found ($r = 0.44$, $p =< 0.05$); i.e., between a transactional leadership style and a surface-disorganised learning strategy, meaning that a surface-disorganised learning strategy is more likely to be used the more a transactional leadership style is experienced.

Regression analysis to measure the influence of experienced leadership style on learning strategy showed that only a transactional leadership style had a positive influence on a surface-disorganised learning strategy ($p = <0.05$) (see Table 8). Thus, when leadership style is perceived as transactional, a middle manager is more likely to use a surface-disorganised learning strategy. No other substantial influences were found.

Table 7   Correlation coefficients for learning strategies and leadership style

N = 30	2	3	4	5	6
1 Deep learning strategy	−0.333	0.071	0.323	0.060	−0.229
2 Surface-disorganised learning strategy		0.242	0.033	0.439*	−0.143
3 Surface-rational learning strategy			0.046	0.265	−0.236
4 Laissez-faire leadership style				−0.35	−0.719**
5 Transactional leadership style					0.069
6 Transformational leadership style					

*Correlation significant at 0.05 level (2-tailed).

**Correlation significant at 0.01 level (2-tailed).

Table 8   Regression analyses for dependent variables: learning strategy

Independent variable: leadership style	Beta	T	SigT
Deep learning strategy			
Laissez-faire leadership style	0.326	1.224	0.232
Transactional leadership style	0.072	0.386	0.702
Transformational leadership style	0.001	0.003	0.998
$R = 0.331$, $R^2 = 0.007$, $F3, 26 = 1.066$, $p = 0.381$			
Surface-disorganised learning strategy			
Laissez-faire leadership style	−0.159	−0.644	0.525
Transactional leadership style	0.453	2.636	0.014
Transformational leadership style	−0.289	−1.167	0.254
$R = 0.485$, $R^2 = 0.235$, $F3, 26 = 2.665$, $p = 0.069$			
Surface-rational learning strategy			
Laissez-faire leadership style	−0.266	−1.032	0.312
Transactional leadership style	0.286	1.599	0.122
Transformational leadership style	−0.447	−1.735	0.095
$R = 0.412$, $R^2 = 0.074$, $F3, 26 = 1.769$, $p = 0.178$			

Table 8 shows that the impact on learning strategy (the criterion variable) of leadership style is less than 1% (for a deep learning strategy) (adjusted $R^2 = <0.01$). A surface-disorganised learning, however, is explained by leadership style for 23% (adjusted $R^2 = 0.235$). Furthermore, it was found that a transactional leadership style (i.e., performance rewarding) has the greatest impact on a surface-disorganised learning strategy (beta = 0.45). Leadership style, however, explained only 7% of a surface-rational learning strategy (adjusted $R^2 = 0.07$). These analyses show that a laissez-faire type of leadership has a negative impact on learning, except for deep learning strategies, while a transactional style positively influences surface learning strategies (most notably a surface-disorganised learning strategy). A transformational style, on the other hand, seems to be negatively linked to surface learning strategies.

4 Conclusions and discussion

This study explored how middle managers learn under pressure, against the background of previous research on learning strategies in the workplace, Workplace climate and leadership style of superiors were hypothesised to influence learning strategies. To gain more insight into the details of workplace learning under high task pressure, we studied how middle managers in the hospitality industry employ specific learning strategies. Working in the hospitality industry was considered both a demanding context for professional learning (Baum, 2002), as well as a neglected area of study on relationships among learning strategies, work climate, and leadership styles. Based on previous studies in other organisations, we contended that stimulating a professional workforce to learn depends on opportunities to learn, which, in turn, depends on a supervising manager's supportive leadership style, taking into account the high task demands and time pressure in the workplace. Against such conditions, learning strategies may be differentially affected. This study therefore, aimed at explicating the relationships between workplace climate, leadership style, and learning strategy. The following were found:

4.1 Relationship between experienced workplace climate and leadership style

Our findings indicate that a middle manager's workplace climate and leadership style are closely and specifically related; especially good supervision (i.e., supportive attention to employees) was found to be closely linked to a transformational style (i.e., a motivating, goal oriented superior). The importance of such a supportive leadership style on the part of supervising managers was found by Coetzer (2003) as well. In line with this observation is that a transformational style was found to be inversely related to a laissez-faire style. Additionally, we found that choice independence (i.e., self organising of tasks) was positively linked to a transactional leadership style (i.e., distant supervision, outcomes oriented). The specific organisational context of middle managers might be of influence here, since middle managers work independently of their supervisors to a great extent because they have to concentrate on daily activities, while their supervising manager focuses more on long-term policies. This may help explain the strong relationship between performance rewards and choice independence, since a transactional leadership style is characterised by distant involvement (i.e., taking necessary decisions), which allows a middle manager to make his or her own choices. These findings agree with the results of a study by Koene et al. (2002): i.e., transformational and transactional leadership styles have a positive influence on workplace climate characteristics such as the perception of good supervision and choice independence (while a laissez-faire style does not). As for workload, we found that a laissez-faire leadership style coincides with a heavy workload experienced by employees, while the reverse was true for a transformational style.

4.2 Relationship between experienced workplace climate and learning strategy

Our findings do not indicate close, specific relationships between workplace climate and learning strategies, although we found a substantial positive relationship between experienced workload and the use of a deep learning strategy. Based on earlier research by Kirby et al. (2003), McManus et al. (2004) and Delva et al. (2004), we expected to

find a positive relationship between a deep learning strategy and perceptions of good supervision and choice independence. Our results, however, show that workplace climate has a small but consistent influence on managers' learning strategies. An unexpected finding is the link between deep learning strategy and heavy workload. This is in clear contrast with earlier studies in other domains (De Hoogh et al., 2004). The hospitality sector may be responsible for this difference, since middle managers work under high pressure, continuously solving different incidents. A heavy workload, apparently, can coincide with deep learning (i.e., problem solving) under these circumstances. A deep learning strategy may help middle managers working under pressure to focus on their work to prevent mistakes.

4.3   Relationship between experienced leadership style and learning strategy

The results of our study indicate that a transactional leadership style has a substantial impact on the adoption of a surface-disorganised learning strategy. This can be explained (Antonakis et al., 2003) by the typical characteristics of a transactional manager, that is, managing by rewards and only providing the most necessary support. A transactional manager does not really pay attention to employees, and therefore middle managers may adopt a disorganised or undirected strategy in their learning. The findings of this study further suggest that a somewhat laxer and more direct guidance by supervising managers (i.e., laissez-faire and transactional styles) coincide with surface oriented learning strategies by middle managers. In the hospitality industry, this learning strategy may be further reinforced by a middle manager's heavy workload and hectic job environment. However, a transformational (i.e., motivating and goal oriented leadership style) was not found to be very important for learning strategies in our data, which disputes our initial contention as well as findings from earlier studies.

4.4   Perspective

To interpret our findings we need to acknowledge that the daily tasks of a middle manager in hotels are driven by heavy task demands and working under pressure. Learning strategies need to adapt to this. We found no strong link between learning strategy and leadership style, which may be caused by middle managers' organisational distance, or choice independence from their superiors. However, work climate (i.e., opportunity to learn under a heavy workload) did influence learning strategy. A deep learning strategy was found to be related to a heavy work load and choice independence. This finding was unexpected, but shows that learning under pressure is possible. Such a strategy can be helpful for solving daily problems in the workplace and seems necessary for career success (Hoeksema et al., 1997). Given this outcome, which type of learning would be relevant to support middle managers for adopting a deep learning strategy? The increasing importance of workplace learning calls for supportive leadership that can enhance employees' problem solving skills and knowledge productivity (Kessels and Harrison, 2004; Probst and Buchel, 1997) Based on our findings, we maintain that a supportive leadership style by supervising managers, adapted to the characteristics of the workplace climate (i.e., good supervision, workload, and choice independence), will foster specific learning strategies: a transformational style is more appropriate to a deep learning approach, and a transactional style to a more surface (rational) approach. In support of learning under pressure, our results imply that leadership style can be a

strong tool in enhancing middle managers' perceptions of workplace climate. Moreover, adopting a surface-disorganised learning strategy, although it may be an obstacle to a middle manager's career success, can to some extent be positively influenced by a transactional leadership style. Another reason to conduct further study on leadership styles and learning strategy is that earlier research (Van der Sluis et al., 2002) shows that some employees are motivated to learn intrinsically, while others are mainly motivated externally. Nevertheless, it should also be noted that our instruments for gauging learning strategies and leadership style, although in accord with other studies, could improve in reliability of measurement.

Of further interest is our finding that a large proportion of variance in a deep strategy for learning is explained by a middle manager's perception of workplace climate, a finding HRD managers may take into consideration. The issue remains, however, about what the conditions are under which perception of workload enhances or impedes a deep strategy to learning. Therefore, it would be of interest to conduct further research in this domain to investigate diversity and variations in learning strategies. In particular, it is important for professional development to enquire what relationships exist between a deep learning strategy and a heavy workload, especially in the context of intrinsically motivated learners. Such a study could probably identify employees as 'knowledge workers' (Slotte et al., 2004). Research evidence on support of learning under pressure can be of interest to professional organisations and the service industry to help follow the development of professional learners in the workplace.

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