

## **THE CHALLENGE OF PUBLIC SERVICES IN PRIVATE OWNERSHIP**

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### **Abstract**

This research examines empirically the relationship between organisation effectiveness, financial efficiency, work environment and structure in public and private organisations. The objective is to examine whether it is the public or private ownership that influences organisational effectiveness and financial efficiency or the contingency factors. Limited research exists, discerning the relationship between these essentially conceptual variables, and the subsequent lack of empirical data. Data was obtained from sixty-nine employees, in twelve private and eight public companies in Victoria, Australia, who completed organisation effectiveness and financial efficiency questionnaires. The relationship of the contributing factors for each major variable has been examined independently using regression analysis. Essentially, the findings support the academic basis of the presently espoused employment relations theories that private organisations will be more financially efficient and less centralised than public organisations, but question the conceptual theories concerning the relationship of effectiveness, efficiency, structure and work environment. Results do show that formalisation is a significant variable, but pointing different relationship directions in public and private companies.

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# THE CHALLENGE OF PUBLIC SERVICES IN PRIVATE OWNERSHIP

## INTRODUCTION

Globalisation and microeconomic reforms, including deregulation, privatisation and labour market reform, have created the pressure for organisations to be more productive, competitive and efficient. For both government providers, such as banks, telecommunications, hospitals, education and private organisations, this has meant a requirement of increased organisation effectiveness as specified by the government's public sector reforms, including competition policy, as in the Hilmer Report (Hilmer, Rayner and Taperall 1993). Public and private organisations, however, have different priorities of social and financial objectives, and historically different formal structures and work environments for optimum organisation effectiveness with efficiency. This move from bureaucratic public administration to the new order of a managerial business model required the imposition of private sector principles (Colley 2001).

The objective of this research is to examine whether it is the ownership, public or private, that influences organisational effectiveness and financial efficiency or the employment relations contingency factors of organisation structure and work environment. This present research does not statistically combine the variables of effectiveness, structure and work environment, but looks for the interrelationships to overcome the previous general assumptions of strategy, structure and culture contained in organisational behaviour literature.

Chandler's (1962) thesis that "structure follows strategy" implies that dynamic private organisations require a comparatively more flexible structure with appropriate job design and reward systems for the organisation to achieve the shareholders' objectives of effectiveness and financial efficiency. In contrast public organisations, with their community service obligations (Baird 2001), deliver the social objectives of impartial fairness and a less personal service orientation and require a more stable bureaucratic structure. This theoretically requires a higher degree of formalisation and centralised control and therefore a more bureaucratic structure. Recently, with privatisation and deregulation, public organisations have restructured and, with strategic human resource management, linked corporate objectives to performance measured operational functions, based upon the private structure model (Colley 2001). In contrast, research by Abelson (1987) demonstrates that this is not universally the case and that for some industries a bureaucratic structure and culture is at least equally effective.

Many researchers agree, however, that the concept of 'fit' between strategy, structure and work environment is essential (Miles and Snow 1978; Chorn 1990). It is this concept of a contingency approach to work environment and structure, which may be required for organisation effectiveness. This implies that public government organisations will have a mechanistic structure and 'satisfier' type work environment in comparison to private organisations, having organic structures and growth orientated work environments. However, these researchers' assumptions are based on limited empirical data.

These findings all support a viewpoint that successful organisations will have an appropriate employment match of work environment and structure; a strategic fit hypothesis. Effective organisations have a high degree of alignment between strategy, structure and work environment. This concept of no one universal strategy, but the importance of "fit" and alignment is also supported by other researchers (Kotter and Heskett 1992; Chorn 1990). These authors also note that this can include different departments within a larger organisation and that a fit today is a misalignment tomorrow.

The research which does exist is essentially focused on the individual factors of: organisation effectiveness, structure and environment, not the interrelationship between the three factors. Early papers, for example Burns and Stalker (1961) were empirical, however, recent papers which do

discuss the interrelationships are conceptual and rarely based on factual data (Adler 1991). This present research attempts to address this problem. The purpose of this research is not to directly compare public and private, but to identify and test the relationships of these four variables among private and public companies (Crack and Dyck 1999; 2000; Barney 1996; Adler 1991). As there are not many empirical studies exploring the interrelationship between organisation effectiveness, financial efficiency, organisation structure and work environment, the hypothesis for each variable are discussed in the respective sections.

The objectives of this research are to examine the relationship between organisation effectiveness, financial efficiency, organisation structures and work environments in public and privately owned organisations.

## **ORGANISATION EFFECTIVENESS AND FINANCIAL EFFICIENCY**

The achievement of organisation effectiveness is the degree to which an organisations realises its objectives (Robbins, Millett, Cacioppe and Waters-Marsh 1998). This simplistic definition is problematical when comparing the politically influenced objectives of public organisations to private organisations where return on investment, being financial efficiency, is a goal included within organisational strategy. In contrast, public organisations have a requirement to fulfil government public service objectives. These community service obligations with their varying definitions include “supplying products and services to community groups at a price less than the cost of supplying them”, and “providing services for wider social and economic reasons” and “a service essential to the community as part of its social justice strategy” (Baird 2001: 57). Community service obligations and social objectives can now be imposed on private organisations fulfilling contracts outsourced from government organisations. These organisations are obliged to operate within budget constraints whereas private organisations are required to fulfil their stakeholder objectives by achieving both organisational effectiveness and profitability from financial efficiency (Abelson 1987). An example of this is where Telstra would not pursue some ‘country’ activities if acting solely on commercial grounds.

Organisations effectiveness is a measure based on: strategic objectives (short and long-term) and stakeholder assessments of financial, social and ethical outcomes. The process of assessment of organisational effectiveness can be both conceptual and technical with complexities such as: ranking of multiple goals, short versus long-term gains and balancing of financial with other social stakeholder objectives (Milton, Entekin and Stenning 1984).

Some public service organisations are criticised regularly on the basis that they are effective, but not efficient (Robbins, Bergman, Stagg and Coulter 2000: 8). Privatisation has been the political driving force to achieve greater effectiveness and efficiency in public organisations by introducing private organisations principles of more organic organisation structures in the achievement of investor financial return. These managerial reforms include setting clear objectives and measuring performance which is a ‘seldom tested assumption’ that it will improve a wide range of social and economic ills (Colley 2001). This ideological approach concerning who should own and provide services is an important question regarding operating more effectively and efficiently (Weller 1996). Empirical research on this generalisation has been limited and not necessarily cross-culturally transferable (Abelson 1987: 34). Efficiency lies in the disciplines of the market place but comparing the efficiency of public and private enterprises is technically difficult and little systematic evidence exists due to the difficulty of direct comparisons and the need to take into account public social accountability and equity in service delivery (Kay and Thompson 1986). Recent publications (Cuervo and Villalonga 2000) in a metaview of 153 studies concluded that “the empirical research about private versus state ownership in the form of cross sectional comparisons gives a considerable edge to private ownership but is not conclusive” (581). Perfect comparisons of public and private are therefore not possible and hence this research does not attempt or include this.

Zahra, Ireland, Gutierrez and Hitt (2000) proposed that privatised organisation structures are more decentralised and environments more dynamic with a greater customer orientation and they are less constrained by bureaucratic controls limiting in their activities. Private firms, to survive in a competitive market, have developed new skills to increase job performance and motivation through incentive schemes. Goodman and Loveman (1991) consider that privatisation will increase efficiency of public organisations but will only be effective when the profit and public interest combine, preferably in a competitive environment. However, it should be noted that managerial objectives, incentives and opportunity to manage through decentralisation, rather than change of ownership, are considered the key criteria for the success of private companies.

For the public organisation, social welfare may be the fundamental requirement, as state enterprises belong to society as a whole and ending up 'belonging to nobody' (Rammamurti 2000; Boykco, Shleifer and Vishny 1995). They are agents without principle, undisciplined by fear of takeover, bankruptcy and the requirement of financial efficiency to achieve returns on investment. These state monopolies have obscure performance obligations, performance contracts and multiple or blurred financial and political objectives (Nellis 1991). Recently, governments have adopted the strategy of corporatisation and deregulation by partially privatising the original state monopoly and creating limited competition. Examples are telecommunication, electricity and transport. This concept is the basis for this research. Cuervo and Villalonga (2000: 581) propose that: public organisations will be more orientated towards organisation objectives of a social nature and less towards financial return; private organisations will include both organisation effectiveness and financial efficiency as organisational objectives, and have 'managing for results' (Goss 2001) and control mechanisms that are more outcome and market based. The following hypotheses were formulated based on these findings:

H1: There will be no significant relationship between organisation effectiveness and financial efficiency among public organisations.

H2: There will be a significant relationship between organisation effectiveness and financial efficiency among privately owned companies.

## **ORGANISATION STRUCTURE**

Organisation structure is the formal arrangement and interrelationship of the component parts and positions of a company (Robbins and Barnwell 1989). Further, it can be described in terms of: formalisation, centralisation and complexity. Organic structures consist of high complexity, low centralisation, low formalisation, low standardisation, and high person and task specialisation. Mechanistic structures are represented by the opposite of these factors on a continuum (Burns and Stalker 1961). Mintzberg (1979) postulated a congruence hypothesis on the relationship among formalisation, specialisation and centralisation. This is relevant as "it directs attention to the fact that change in one aspect of the organisation design will affect the other part of the organisation" (Bedeian and Zammuto 1991: 141). Mintzberg (1979) further hypothesised that centralisation, specialisation and formalisation are positively related and that, centralisation, complexity and training, with subsequent socialisation, are negatively related. Research also indicates "a high level of job specialisation is associated with reduced job satisfaction, worker alienation, decreased employee involvement, and lower levels of organisational commitment" (Bedeian and Zammuto 1991: 142).

In the case of change in Australian government, there was a Royal Commission on Australian Government Administration (Coombs Commission) which considered the relevance of bureaucratic structures, but did not necessarily recommend organisational changes towards contracting out and the simulation of a competitive market approach (Colebach 2001). The reality is that privatisation occurred to change the traditional bureaucratic structure to improve service consciousness (Weller 1996). This was also reflected in changing employment relations and career paths (Gardner and

Palmer 1992). These can include servicing unprofitable consumer segments or reducing unemployment in regions. Historically public bodies have a policy of providing career and job security in a stable work environment. There is also a relationship between the individual, the group and organisation effectiveness which relates to the systems approach of measurement and the ability to change inputs into outputs (Kast and Rosenzweig 1985).

Centralisation has advantages and disadvantages. Decentralisation can increase the speed of decision-making but can also result in loss of control. In some contingent situations, this will have different effects on organisation effectiveness and financial efficiency. Research also shows that simple routine jobs are appropriate to formal organisations, but as they are horizontally enlarged and vertically enriched, using, for example, organic team approaches, then work environment and socialisation become more relevant (Bedeian and Zammuto 1991). Cuervo and Villalonga (2000: 582) propose that private organisations will be found to have a more decentralised organisational structure whereas public bodies will tend towards a more formal and centralised structure.

Formalisation, although normally associated with mechanistic structures and, therefore in some literature, having a negative relationship to effectiveness, has also been noted to have a positive relationship with financial efficiency. This is due to the more precise financial controls required by the structure and therefore minimising inefficient financial systems (Huber 1990).

Hage and Aiken (1967) found that there is an inverse relationship between centralisation and complexity. However the centralisation-formalisation relationship is ambiguous, with research showing inconsistent results (Robbins and Barnwell 1989: 71). The present research attempts to explain why there are inconsistent results between the variables and hence a directional hypothesis is not attempted.

H3: There will be a significant relationship between organisation structure (formalisation, centralisation and complexity), organisation effectiveness and financial efficiency among private and public organisations.

## **WORK ENVIRONMENT**

Organisation climate can be defined as “the quality of the internal environment experienced by its members, influencing their behaviour and distinguishing it from other organisations” (Milton, Entekin and Stenning 1984: 516). The social climate and work environment are unique and differ in how people both interpret the environment and the level of influence of the environment on the individual. Johnson, Smith and Codling (2000) state that the differences between public and private sector can be described as institutional templates and the actors are socialised through learning the norms relevant to compliance with the organisational structure and rules. This is relevant to employment relations as research suggests in general terms that staff in mechanistic organisations will have lower aspiration levels (Blauner 1964; Hackman and Suttle 1977) and organic organisations will conversely contain more growth orientated work environments.

## **CONTINGENCY THEORY OF ORGANISATION STRUCTURE AND WORK ENVIRONMENT**

The search for explanations of organisational success has led to the concept of fit as a key factor in many organisation and management research findings (Miles and Snow 1984). These findings indicate that successful organisations are strategically closely aligned with the opportunities and constraints in their environment in terms of external fit, and also support their strategies with internal configurations of form in organisational design and management systems that are highly congruent and synergistic (Chandler 1962; Collins 1987).

These configurations comprise patterns in an organisation's strategy, structure, technology, culture, size and dispersion, products and services, management systems, and workforce characteristics. None of these features by themselves can be used to explain success. Rather,

organisational success is a function of careful design of each element and the integration of these elements into functional configurations. The implication of the concept of fit is that there are only a limited number of compatible patterns between the elements that can produce tight fit within the system options. Legge and Mumford (1978) consider that organisations are purposive systems seeking to achieve organisational goals using structures and processes. Moreover, they maintain, with others, contingent organisational designs are required, so that they are appropriate and have a fit with specific organisational circumstances and objectives.

The integration of the systems of an organisation is central to the research of Argyris (1964). Essentially he was trying to establish the organisational conditions which permit the integration of individual needs and organisational goals, reconciling the formal and informal organisation to achieve maximum effectiveness and quality of working life.

In general terms research suggests that staff in mechanistic organisations will have lower aspiration levels and be predisposed to high levels of anomie and alienation (Hackman and Suttle 1977; Blauner 1964). Conversely, organic organisations will thus contain more growth orientated and self-actualising types of people. This relationship of the environment in terms of the different types of organisation and the different individual orientations, have different personality outcomes based on the types of interaction (Tosi 1983; Mintzberg 1979). Yet there is no one comprehensive theoretical model which deals with this problem (Tosi 1983). For the public service, the new managerialistic approach required restructuring to remove the similarities with the discredited Weberian model and develop organic forms of organisations similar to those of the private sector (Colley 2001)

Pritchard and Karasick (1973) compared the climates of two significantly different organisations; a dynamic growth franchise and routine centralised manufacturing operation. The results confirmed that the dynamic organisation had a more self-actualising climate than the more formal climate in the centralised operation. This research is useful but the environment measure also incorporated factors of structure and both organisations were similarly effective in their own criteria of organisation success. These are similar to those in the Moos Work Environment Scale. This basic data confirms the need for further research to ascertain the actual relationships between work environment, structure and organisation performance.

However not all organisations are in this essentially privately owned category. Many are more suited to mechanistic, centralised, bureaucratic systems. An alternative view stresses the appropriate contingency compatibility of structure and work environment. Neugoboren (1985) and Heydebrand (1973) in their discussions of human services and hospital bureaucracy emphasise the qualities of the good bureaucrat and the bureaucratisation of professionals. This espouses the benefits of a highly formalised structure and type of legitimate authority to ensure success in the organisation: people who do not fit bureaucracies suffer from "Bureausis". In the case of the Australian Public Service this 'linking of individual performance to corporate goals and improving communication involving feedback' is a relevant theory which is based upon individual motivation. In the case of public work, Goss (2001) considers that in many cases, there are "different non-monetary motivations of public officials" (p. 4). Opposing views are part of the basis for this research as no one simplistic view is adequate concerning the most appropriate structure and work environment.

H4: There will be a significant relationship between organisation structure and work environment among public and private companies.

H5: There will be a significant relationship between work environment, organisation effectiveness and financial efficiency among public and private companies.

## **METHOD**

## Sample

The selected stratified sample of twenty organisations represented a range of medium and large industries and consisted of eight public and twelve private bodies. These were located in country Victoria, Australia, and were personally visited to obtain the data. None of the organisations were monopolies, the government organisations being in competition with other, private providers. Examples of this are telecommunications, electricity and universities. Each organisation answered a questionnaire relating to organisation effectiveness and financial efficiency (Townsend 1993), completed by senior managers. Five employees in each organisation from representative line function departments with a total of sixty nine employees completed the Organisation Structure (Robbins and Barnwell 1989) and the Work Environment Questionnaires (Moos 1987).

Table 1 indicates the various categories which participated in the study.

**Table 1: Percentages of the participating organisations**

Category of organisation	No. of participating organisations	Percentage
<b>Public</b>		
Manufacturing	3	15%
Service	5	25%
<b>Private</b>		
Manufacturing	6	30%
Service	6	30%

## INSTRUMENTS

Organisation effectiveness is the degree to which an organisation realises its goals (Robbins and Barnwell 1989). This is a complex and problematical subject due to the number of variables which can be involved (Steers 1975). Organisation efficiency is a ratio that reflects a comparison of some aspect of unit performance with the costs incurred for that performance such as financial efficiency, return on investment and productivity outputs (Steers 1975).

The organisation effectiveness and financial efficiency variables were assessed using a questionnaire developed by the first author. It included strategic objectives, stakeholder assessments including social and ethical achievements of private organisations, not always reflected in profit targets. The financial performance is assumed to be a correct interpretation of the figures and the social performance was a focus group view. Financial aspects include: share value; profitability/ budget performance; assets; and social performance (Jager, Taylor and Irvine 1994; Bauer and Fend 1972). Human resource management included: employee productivity; flexibility; training and development; quality; morale; and legal compliance (Occupational Health & Safety, Equal Employment Opportunity/Affirmative Action) (Fitz-Enz 1980). Production included: restructuring; multi-skilling; productivity; R&D; and recycling (Lawler 1985). Marketing included: innovation; market share; customer satisfaction; and sustainability (Asseal, Reed and Patton 1995). The total of thirty six questions were represented by scaled measures of 0 (minimum) to 10 for each departmental function summarised into a final percentage score. This instrument, available from the first author, is considered to be a balanced comparative perception assessment of organisation performance.

The organisation structure was measured using the standard concept of mechanistic to organic, (Burns and Stalker 1961) applying Robbins' and Barnwell's (1989) questionnaire in three parts with

sections for: formalisation, complexity and centralisation. The dimensions of complexity and formalisation were measured using a seven item questionnaire with five alternatives per item; the higher the score, the higher the factor. Centralisation consisted of ten items, each with five alternatives; the higher the score, the greater the centralisation.

Moos' (1987) work environment scale was used to measure the environmental influence of "morale, well-being and other outcomes" (5). The dimensions measured by the Work Environment Scale (WES) are: relationship dimensions; personal growth or growth orientation dimensions; and system maintenance and change dimensions.

The ten WES sub-scales assess three underlying domains, or sets of dimensions: the Relationship dimensions, the Personal Growth dimensions, and the System Maintenance and System Change dimensions. The ten individual dimensions were measured using nine 'true or false' questions per dimension, with a total of ninety for the complete scale.

The Relationship dimensions were measured by twenty seven questions concerning Involvement, Peer Cohesion and Supervisor Support sub-scales. These sub-scales assess the extent to which employees are concerned about and committed to their jobs; the extent to which employees are friendly to and supportive of one another; and the extent to which management is supportive of employees and encourages employees to be supportive of one another.

The Personal Growth, or goal orientation, dimensions were measured by twenty seven questions concerning Autonomy, Task Orientation and Work Pressure sub-scales. These sub-scales assess the extent to which employees are encouraged to be self-sufficient and to make their own decisions; the degree of emphasis on good planning, efficiency, and getting the job done; and the degree to which the press of work and time urgency dominate the job milieu.

The System Maintenance and System Change dimensions were measured by thirty six questions concerning Clarity, Control, Innovation and Physical Comfort sub-scales. These dimensions are similar to the factors identified by Pritchard and Karasick (1973) and Robbins and Barnwell (1989) for dimensions of organisation climate and work environment. The WES questionnaire has been used in many research situations and is supported by considerable validation and reliability data and therefore appropriate for this purpose (Moos 1987: 5). The measures of internal consistencies are in the acceptable range of 0.69 to 0.84. Retest reliabilities are in the same range and dimensions can also be combined into a single index of work environment.

## **METHOD**

### **Data collection procedure**

A multiple regression framework was used to test the organisation structure and work environment in predicting organisation effectiveness (OE) and financial efficiency (FE). The unit of analysis was that of the organisation with the data from the employees aggregated to each. Linear regressions were used separately to analyse two sets of variables affecting the two dependent variables. Eight regressions were carried out in each regression. All the independent variables were entered into the regression simultaneously to predict the role of organisation structure and work environment on OE and FE.

## **RESULTS**

The Pearson's correlation coefficient between organisational effectiveness and financial efficiency among public and private companies show that there is a significant relationship between organisational effectiveness and financial efficiency among private companies ( $r = 0.672$ ,  $n=46$ ,

$p < 0.05$ ) and hence hypothesis 2 is accepted. The 'null hypothesis' 1 is accepted because the result shows that there is no significant relationship between organisational effectiveness and financial efficiency among public companies ( $r = -0.130$ ,  $n=23$ ,  $p > 0.10$ ).

**Table 2: Regression results for organisational effectiveness and organisation structure variables among public and private companies**

Variable	Public <sup>a</sup>		Private <sup>b</sup>	
	Beta-value	t-value	Beta-value	t-value
Constant		2.853		8.656
Formalisation	0.106	0.451	0.465	3.491***
Complexity	-0.232	-0.905	-0.191	-1.229
Centralisation	-0.062	-0.248	-0.570	-3.937***

<sup>a</sup>R<sup>2</sup> 0.071 Adj R<sup>2</sup> = -0.076 F(3,19)=0.485 p=0.697

<sup>b</sup>R<sup>2</sup> 0.393 Adj R<sup>2</sup> = 0.349 F(3,42)=9.058 p=0.001

\*\*\*p<0.001

Table 2 indicates the relationship between organisational effectiveness (OE) and organisation structure variables - formalisation, complexity and centralisation among public and private companies. The coefficients for formalisation (3.491,  $p < 0.001$ ) and centralisation (-3.937,  $p < 0.001$ ) contribute significantly to organisational effectiveness among private companies. The standardised regression coefficient (-0.57) indicates that private companies' organisational effectiveness is negatively related to centralisation. Formalisation and centralisation together explain a variance of 35% of organisational effectiveness among private companies. The model summary of  $F(3,42)=9.058$ ,  $p < 0.001$  for private companies indicate that the Multiple R (0.393) is significant to predict the relationship in other private companies. Whereas table 2 also shows that there is no significant relationship between the three organisation structure variables and organisational effectiveness among public companies and between complexity and organisational effectiveness among private companies.

**Table 3: Regression results for financial efficiency and organisation structure variables among public and private companies**

Variable	Public <sup>a</sup>		Private <sup>b</sup>	
	Beta-value	t-value	Beta-value	t-value
Constant		5.376		5.200
Formalisation	-0.716	-4.022***	0.314	2.025*
Complexity	0.109	0.563	-0.474	-2.626**
Centralisation	-0.187	-0.985	-0.413	-2.453**

<sup>a</sup>R<sup>2</sup> 0.470 Adj R<sup>2</sup> = 0.387 F(3,19)=5.620 p=0.01

<sup>b</sup>R<sup>2</sup> 0.181 Adj R<sup>2</sup> = 0.122 F(3,42)=3.085 p=0.05

\*p<0.05 \*\*p<0.01 \*\*\*p<0.001

The t-value (-4.022,  $p < 0.001$ ) in table 3 indicates that the organisation variable of formalisation, is significantly related to financial efficiency among public companies. Formalisation alone explains 39% for achieving financial efficiency among public companies. Further, the Multiple R (0.470) indicates a strong relationship between formalisation and financial efficiency among other public companies. Among private companies there is a significant relationship between formalisation (2.025,  $p < 0.05$ ), complexity (-2.626,  $p < 0.01$ ) and centralisation (-2.453,  $p < 0.01$ ) and financial efficiency. The Beta-value for complexity (-0.474) and centralisation (-0.413) indicates negative relationship with financial efficiency among private companies. The Multiple R shows that formalisation, complexity and centralisation can explain 18% of the financial efficiency variation among private companies.

**Table 4: Regression results for work environment variable of growth and organisation**

**structure variables among public and private companies**

Variable	Public <sup>a</sup>		Private <sup>b</sup>	
	Beta-value	t-value	Beta-value	t-value
Constant		1.008		3.055
Formalisation	0.445	2.017*	0.266	1.614
Complexity	-0.075	-0.311	-0.244	-1.270
Centralisation	0.016	0.069	-0.049	-0.275

<sup>a</sup>R<sup>2</sup> 0.185 Adj R<sup>2</sup> = 0.057 F(3,19)=1.442 p=0.262

<sup>b</sup>R<sup>2</sup> 0.073 Adj R<sup>2</sup> = 0.007 F(3,42)=1.100 p=0.360

\*\*p<0.01

Table 4 shows that formalisation (2.017, p<0.05) is significantly related to the work environment variable of growth among public companies, and complexity and centralisation are not significantly related to growth. Formalisation contributes to 19% of variance in growth but the Multiple R (0.185) indicates that it is not significant to generalise this finding to the population. Among private companies there is no significant relationship between organisation structure variables and work environment variable of growth.

**Table 5: Regression results for work environment variable of relationship and organisation structure variables among public and private companies**

Variable	Public <sup>a</sup>		Private <sup>b</sup>	
	Beta-value	t-value	Beta-value	t-value
Constant		1.732		3.143
Formalisation	0.161	0.670	0.323	1.995**
Complexity	-0.055	-0.210	-0.321	-1.701
Centralisation	-0.071	-0.277	-0.146	-0.830

<sup>a</sup>R<sup>2</sup> 0.036 Adj R<sup>2</sup> = -0.116 F(3,19)=0.237 p=0.869

<sup>b</sup>R<sup>2</sup> 0.104 Adj R<sup>2</sup> = 0.040 F(3,42)=1.625 p=0.198

\*\*p<0.01

The t-value (1.995, p<0.01) for formalisation in table 5 is significantly related to work environment variable of relationship among private companies. But formalisation explains only 4% of variance in the work environment variable - Relationship. The Multiple R (0.036) is not significant to generalise the model to all other private companies. Complexity and centralisation among private companies and the three structural variables among public companies are not significantly related to the work environment variable - relationship.

**Table 6: Regression results for work environment variable of maintenance and organisation structure variables among public and private companies**

Variable	Public <sup>a</sup>		Private <sup>b</sup>	
	Beta-value	t-value	Beta-value	t-value
Constant		3.982		3.661
Formalisation	0.033	0.150	0.453	2.949***
Complexity	0.106	0.436	-0.375	-2.095**
Centralisation	-0.438	-1.842*	-0.096	-0.575

<sup>a</sup>R<sup>2</sup> 0.171 Adj R<sup>2</sup> = 0.040 F(3,19)=1.309 p=0.300

<sup>b</sup>R<sup>2</sup> 0.194 Adj R<sup>2</sup> = 0.136 F(3,42)=3.363 p=0.027

\*\*\*p<0.001 \*\*p<0.05 \*p<0.10

Table 6 shows that formalisation (2.949, p<0.001) is significantly related to the work environment variable of maintenance among private companies, whereas complexity is negatively related (-

2.095,  $p < 0.05$ ) to 'maintenance' among private companies. There is no significant relationship between centralisation and 'maintenance' among private companies. There exists a negative relationship (-1.842,  $p < 0.10$ ) between centralisation and 'maintenance' but it is significant only at 0.01 level among public companies. Formalisation contributes to 17% of variance in 'maintenance' but the Multiple R (0.171) indicates that it is not significant to generalise this finding to the public company population. Among private companies 19% variance is explained by formalisation and complexity and this prediction can be generalised to the private company population because of  $F(3,42)=3.363$  and that is significant at 0.05 level.

**Table 7: Regression results for organisation effectiveness and work environment variables among public and private companies**

Variable	Public <sup>a</sup>		Private <sup>b</sup>	
	Beta-value	t-value	Beta-value	t-value
Constant		1.417		10.345
Growth	0.579	2.592*	-0.130	-0.800
Relationship	-0.166	-0.709	0.138	0.768
Maintenance	0.245	1.229	-0.055	-0.311

<sup>a</sup> $R^2$  0.323 Adj  $R^2$  = 0.216  $F(3,19)=3.019$   $p=0.055$

<sup>b</sup> $R^2$  0.024 Adj  $R^2$  = -0.045  $F(3,42)=0.348$   $p=0.791$

\* $p < 0.05$

Table 7 indicates that the work environment variable of growth is significantly (2.592,  $p < 0.05$ ) related to organisation effectiveness and it explains 32 % of variance among public companies. This finding can be generalised because the Multiple R (0.323) is significant and part of H5 is accepted. There is no significant relationship between work environment variables – relationship and maintenance - and organisation effectiveness among public and private companies. There is no significant relationship between financial efficiency and work environment variables among public and private companies and hence part of H5 is rejected.

## DISCUSSION

The objectives of this employment relations research concern the examination of the relationships between organisation effectiveness, financial efficiency, organisation structure and work environment in public and private organisations. The results show that there is a significant relationship between organisation effectiveness and financial efficiency in private organisations; but there is no significant relationship in public organisations. This is as anticipated and therefore confirms and adds to the research propositions that public organisations will be more orientated towards organisation objectives of a social nature and that private organisations will include both organisation effectiveness and financial efficiency as objectives (Cuervo and Villalonga 2000). Public organisations are not required to achieve financial efficiency in the form of return on investment for shareholders, but are required to provide services which are frequently difficult to measure. They are, however, required to be financially efficient in terms of the services provided within the government budget. Abelson (1987) and Mahoney and Weitzel (1969) also expressed this view concerning stakeholders objectives and found that there is a relationship in general between organisation effectiveness and financial efficiency. This opinion is also supported by Goodman and Loveman (1991) where they compared the objectives of privatised organisations, in competitive environments, to the objectives of public organisations, finding that the latter have blurred conflicting financial and political objectives (Nellis 1991).

Organisation effectiveness and financial efficiency can therefore be related in private organisations. However, where these private organisations are acting in the same industry as the previous government organisation and are servicing the government as a customer, organisation

effectiveness and financial efficiency may not necessarily be related. The present debate concerning the full privatisation of Telstra and the issue of quality of service to less profitable country areas for social equity reasons is an example of these considerations. In the present study, the sample includes public hospitals having social non profit objectives. Some of these were privatised organisations which have been forced to return to public ownership. These are undergoing a transitional phase back to public management, due to being unable to achieve both organisation effectiveness and financial efficiency in providing the quantity and quality of service within the agreed outsourced fee provided by the state government. Hindsight has demonstrated that the major factors for improving productivity are those of: deregulation, quality of management and the challenge of competing with similar organisations.

The importance of this research is that it demonstrates that if the organisation objectives, being those of profit and community service are not compatible, then dysfunctions will result. The microeconomic policy of deregulation, labour market reform and public sector enterprises, to improve productivity, through employment relations, involves the policy dilemma of short term costs versus medium to long term benefits. Whilst the big picture of globalisation and competitiveness in theory improve effectiveness and efficiency, this depends upon those who benefit and those who do not from this reform. Examples where privatisation in the short term has benefited either employees or consumers as a whole are hard to find. Some services such as banking and telecommunication have improved to consumers, but only with intense political lobbying for those in uneconomic areas who require an equal standard of service. This demonstrates the need for the competing objectives to be compatible which only occurs in profitable areas of operation. This can be both geographical and technical such as private hospitals specialising in short term profitable operations. Employees may only benefit in the long term with substantial government support in retraining to survive a lost of previously stable employment. Social responsibility for private organisations is usually included within the marketing framework of consumer choice such as being 'green' or 'healthy'.

Public organisations which are 'natural bureaucracies' can already have the most appropriate structure, due to the nature of the enterprise and the inherent need for a rigid professional qualification structure. An example is hospitals with formal qualification and medical administration requirements. The relationship between the organisation structure and organisation effectiveness confirms Cuervo's and Villalonga's (2000) findings of private organisations having decentralised organisation structure but contradicts the findings that public companies are formalised and centralised. This finding of decentralisation being more relevant for private companies is to be expected, but the finding of formalisation is contradictory to the theories and needs further research to validate this finding. High formalisation in this case is probably due to the business nature of the private companies in the study, such as process chemical plants and hospitals that need high control by nature of their business. The principle that private organisations, free from the bureaucratic control of public organisation, can gain benefits from more modern organic structures is not universal but depends upon the nature of the business (Huber 1990). These findings are supported by similar research in the Gippsland, region which found that 23% of private organisations had restructured with 18% moving to semi autonomous work groups (Pullin 1993). Similarly, 40% of public work places had reorganised management structures, demonstrating that many public organisations are no longer 'ideal' bureaucracies, hence supporting this research which found that the traditional formal organisation structure is not a significant factor for public companies.

In examining the relationship differences between the organisation structure of public and private companies, in the achievement of financial efficiency, the research finds that there is a negative relationship in public organisations with formalisation and financial efficiency. This again is probably due to the nature of the sample where the most formal public organisations, such as hospitals, are not active in the achievement of return on investment. The negative relationship in private organisations between complexity and centralisation is as would have been postulated by Mintzberg (1979) in his theory concerning relationships between different parts of the organisation

design. The private organisations in the sample were not complex but service oriented which may explain the results. The decentralised organisation structure in private companies not only correlates with financial effectiveness but also organisation effectiveness. This confirms the conceptual theories of Cuervo and Villalonga (2000) and also those of Mintzberg that decentralisation can increase both effectiveness and efficiency. The private companies in this sample were often franchises related to hospitality or real estate. Each of these are owner operated, but from a central coordinating body. These findings essentially contradict Huber's (1990) theory of formalisation having a positive relationship to financial efficiency; but is confirmed only in the case of private organisations (not public). It also partially contradicts his theory that formalisation (mechanistic) can have a negative relationship to organisation effectiveness.

Concerning work environment and structure, there is a relationship between growth and formalisation in public companies which can be explained by the upwardly mobile dominant personality in mechanistic organisations (Presthus 1978). This might be because public companies in Australia have more stability than private companies and more definite career plans for employees. It is therefore possible to postulate that general theories of alignment and 'fit', concerning structure and work environment are not totally transferable to specific regions where a particular environment is not necessarily typical of other environments where structure and culture have been researched. In this case, the sample region's main employers are mining, electricity, gas, water and service industries. Hence, the contingency theory of strategy, structure and behaviour approach to management in organisations needs to also include government, industry and competitive factors. For practising managers, the essential factors to consider require the utilisation of conceptual academic theories, but with a common sense approach of experience in the specific industries.

The research also shows that there is a relationship between the work environment factor of relationship and organisation structure variable of formalisation in private organisations. This can also be explained by the financial nature of the business and the employment relations productivity.

The results concerning the work environment factor maintenance and organisation structure show there is a positive significant relationship between formalisation and a negative one with complexity in private, and centralisation in public. This is as would be expected where formal, centralised organisations have less dynamic cultures and tend towards a maintenance work environment. This confirms the theories of Pritchard and Karasick (1973) concerning the compatible relationships of climates in the different types of organisations. The data also shows that there is a relationship between the work environment factor of growth and organisation effectiveness in public organisations, and this can be explained by the decentralised, organic nature of the organisations in the sample. This is as would be described by Hackman and Suttle (1977), who proposed that there is a relationship between the structure and socialising employees to different behaviours and attitudes. The findings also confirm the empirical work of Pritchard and Karasick (1973), that dynamic organisations will have a more self-actualising climate relating to improve organisation performance. The proposition that in practical reality the important variable factor relevant to success in organisations is that of the combination of the energy and talents of its people is a fundamental concept in human resource management.

## **CONCLUSION**

The dilemma of improving organisation effectiveness and efficiency in public and private organisations, has been based on private general management theories of strategy, structure and environment. These include the academic contingency theories state that compatible alignment of strategy, structure and behaviour are essential for organisation effectiveness (Collins 1987: 7). Within this theory lies the factor that community service objectives are not fundamentally compatible with those of the competitive and aggressive pursuit of profitability. These are different

from theoretical views of social responsibility included within private organisation strategies. In conclusion, management theories are not universal in applicability. This confirms the views of experienced analysts and academics that essentially improving organisation effectiveness would appear to derive from having effective managers and an organisation structure relevant to other contingency factors in the industry.

This research has attempted to test the practical reality of the conceptual theories concerning organisations in both public and private ownership. Essentially, the findings support the academic basis of the presently espoused theories that private organisations will have a relationship of organisation effectiveness with financial efficiency, and will be more decentralised. The conceptual theories concerning the relationship of effectiveness, efficiency, structure and work environment are both confirmed and partially contradicted. Results show that formalisation is a significant variable, but in different ways in public and private bodies and that the growth factors of work environment is relevant to effectiveness in public organisations. This research is relevant in that it demonstrates the requirement for the compatibility of profit and social objectives for organisation effectiveness and efficiency. In the case of universities, in the pursuit of profitable offerings, the social objectives of education may well disappear. Globalisation will continue to create pressure for both public and private organisations and more empirical research is required concerning the strategic combinations of structure and environment to achieve the dilemma of public and private organisation objectives.

#### **LIMITATIONS OF THE RESEARCH**

This study concerns the analysis of differing theoretical views by using empirical research. As such, limitations concerning the sample include: size of population, measurement of work environment and structure ideally requires cross comparison between different departments of large organisations, and problems with absolute categorisation of partially privatised organisations. Additional contingency factors need to be included for comprehensive analysis and interpretation of the quantitative data to clarify differences between ownership categories and nature of the business. This includes industries which, for example, are either natural public monopolies or those industries which are subject to the effect of competition and competition from other profitable organisations. Future research is hence required of a similar nature, but within the same industry sectors, to obtain realistic comparisons.

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