









words), links (codes) and categories (main themes). A most significant ethical issue in the study was the need to ensure participant anonymity and confidentiality as some data might contain sensitive or strategic information. Therefore, no identifying information appeared on or was requested in the survey and participation was voluntary. Consent to participate was assumed when an employee returned the survey and all hard-copy or e-mailed surveys were returned directly to the researchers. The Curtin University Human Research Ethics Committee had approved the study as being managed according to its guidelines.

## RESEARCH FINDINGS

As shown in Exhibit 1, the research participants comprised both females and males with more males as expected in senior positions in organisations. The ages of participants was spread from the twenties to over fifty years of age with the largest group being in the 40-49 years range.

<b>Exhibit 1. Participant' Gender and Age.</b>		
<b>Characteristic</b>	<b>Variable</b>	<b>Number</b>
<b>Gender</b>	Female	3
	Male	7
<b>Age</b>	20-29	1
	30-39	3
	40-49	4
	50+	2

Similarly, there was a range of industries represented in the survey, as shown in Exhibit 2, the advantage being that, in an exploratory study there was the potential for a variety of relevant responses. Exhibit 3 was used to present specific information regarding the participants' position and time employed in their organisation. A strong majority of participants held upper management positions and had been in their current job for less than three years, even though they had spent from less than three to more than 10 years in the organisation.

When asked about the effects of the global financial crisis on their organisation, all respondents reported a degree of 'downturn'. However, they reported that the 'downturn' varied; e.g., it was Slight (3), Moderate (4) or Significant (3). As shown in Exhibit 4, the economic downturn factors tended to be evenly divided between the categories of finance and work performance, although 20% of the participants' responses related to effects related to 'customers'.

<b>Exhibit 2. Participant' Industry</b>		
<b>Industry</b>	<b>Focus</b>	<b>Number</b>
<b>Mining</b>	Iron Ore	1
<b>Electricity, Gas, Water &amp; Waste Services</b>	Water & Waste	1
	Water, Waste & Drainage	1
	Energy Logistics	1
<b>Construction</b>	Concrete Manufacture	1
<b>Retail Trade</b>	Hardware	1
<b>Transport, Postal &amp; Warehousing</b>	Rail Engineer	1
<b>Financial and Insurance Services</b>	Banking	1
	Retail Banking	1
<b>Health Care &amp; Social Assistance</b>	Aged, Disabled, Ill & Infirm Care	1

<b>Exhibit 3. Participant' Position in Organisation</b>		
<b>Characteristic</b>	<b>Variable</b>	<b>Number</b>
<b>Organisational Level</b>	Supervisory	1
	Middle management	2
	Upper management	7
	Executive	0
<b>Time in Organisation</b>	Less than 3 years	1
	3-5 Years	4
	6-10 Years	2
	10+ Years	3
<b>Time in Current Job</b>	Less than 3 years	6
	3-5 Years	2
	6-10 Years	1
	10+ Years	1

The types of decisions used by the organisation in responding to the economic downturn were posited as being strategic (long-term), improvisation (short-term) or a combination of both. The initial response by participants indicated that no organisation used strategic or improvised decisions alone; i.e., all ten organisations used a combination of decision types to maximise their outcomes. Moreover, the respondents' answers indicated an equal number of specific decisions in the 'strategic' (6) and 'improvisation' (6) categories. In addition, there were 9 action decisions nominated regarding a 'staff' category (Exhibit 5). The suggestion is that staffing was a central area of operational change in the organisation's response to the economic strictures.

Exhibit 6 presents specific actions that were effected by organisations in responding to the financial crisis; some organisations used more than one response, so the total number of responses does not add to ten. 'Downsizing' was the most common response by organisations, though the 'Form alliances' and 'Restructure'

actions were used by more than one organisation; the use of a 'Merger' involved only one organisation. However, in addition to the four categories suggested, participants listed six 'Other' responses, as shown in Exhibit 6.

<b>Exhibit 4. Economic Downturn Factors</b>	
<b>Links</b>	<b>Categories</b>
Revenue inflow Cost of money Loan defaults Reduction in opportunities Cash-based deposits Funding opportunities Sales Government funding External funding	Finance
Vigilance Efficiencies Urgency Slowdown Nowhere near peak Trouble with suppliers Necessary maintenance Building downturn Contracts	Work Performance
Customer impact Demand for care services Consumer confidence Use of company facilities	Customers

<b>Exhibit 5. Categories of Decisions</b>	
<b>Links</b>	<b>Categories</b>
Borrowing of funds Credit/lending policies Longer-term impacts Quality human resources Rethinking core business Divisions joined together	Strategic
Moratorium on new equipment Moratorium on investments Reduced duplication of services Budget cuts Retail prices reduced New equipment orders on hold	Improvisation
Reduce staff numbers Staff reduction More accountability Retrenched staff No replacement of staff No overtime Staff forced to take leave Conditions of employees reduced	Staff

<b>Exhibit 6. Organisational Responses to Downturn</b>		
<b>Action</b>	<b>Number</b>	<b>Details</b>
Downsize	4	'Other' responses included: * Business improvement * Use of suppliers * Replacement of staff by natural attrition * Rethink core business * Reduce duplication of Services * Conservative expansion to take advantage of lower costs
Restructure	2	
Merge	1	
Form alliances	3	
Other	4	

When asked about what had triggered the organisation to make decisions for change, fourteen different items were linked from the key words provided by participants (Exhibit 7). The links were placed into one of the three categories of internal or external pressures or standard organisational practices.

<b>Exhibit 7. Reasons for Organisational Decisions</b>	
<b>Links</b>	<b>Categories</b>
Need to stay in business – no other way Self-protection & survival State government decision	External pressures
Financial sustainability Desire to maintain service levels Monthly profit figures Efficiency measuring Amount of work in progress	Internal pressures
Constant review Constant monitoring Shareholder input Management review Review of needs of workers Focus on business opportunities	Standard practices

When asked if there was a generally accepted procedure to deal with chosen strategies in their organisation, only eight of the ten replied in the affirmative. Nevertheless, twelve different links were identified from the participants' responses (Exhibit 8). The three categories of organisational procedures were identified as arising from management processes, factors related to decision-makers and a number of non-formal procedures. Participants reported five information sources that were used by the organisation in order to investigate the need for changes to strategy (Exhibit 9). Most organisations used more than one source, which accounts for the tally of sources exceeding ten. In addition, the 'other' category had two items, each of which was nominated by only one person. The responses indicate that external market analysis and the driving vision of top management are the two major information sources for prosecuting change.

Another aspect of effecting change in an organisation relates to the need for effective communication of the change decision and operational imperatives (Results are reported in exhibit 10). In the current study, 9 out of 10 participants reported that use of 'meetings' was essential. At the next level, each nominated on seven occasions were use of 'email', 'intranet' and 'employee training sessions'. In retrospect, the item 'employee training sessions' may have been better listed as 'employee information

<b>Exhibit 8. Procedures to Implement with Strategies</b>	
<b>Links</b>	<b>Categories</b>
Standard management processes Strategic planning processes Industry codes and explanations Clear strategic plan Always reviewed and followed	Management processes
Enhanced to take account of factors specific to alliance partners Decisions made by the Board Decisions by senior staff	Decision-maker factors
Very quick decisions Knee jerk reactions Not much planning	Non-formal

<b>Exhibit 9. Information Sources for Strategy Change</b>	
<b>Information Sources</b>	<b>No. x/10</b>
Executive network contacts	3
Driving vision of top management	5
Analysis by organisation's marketing department	4
External market analysis	6
Low level (bottom up)	5
Other – mining slowed government policy	2

<b>Exhibit 10. Organisational Change Communication</b>	
<b>Type of Communication</b>	<b>No. x/10</b>
Meetings	9
Email	7
Intranet	7
Internal newsletter	3
Internal memorandum	4
Employee training sessions	7
Informal grapevine	5
Other – CEO message	1



sessions'. Another feature of interest was that 5 out of the 10 respondents identified the 'informal grapevine' as being an important communication type in relation to organisational change.

As indicated in Exhibit 11, there were nineteen links specifically related to employees' reaction to the uncertainty that resulted from changes to organisational strategy associated with the global financial crisis. From the links developed from the key words used in participants' responses, three major categories of reaction were identified; viz., categories based on opinion, assumption and principle which defined the level of intensity of employee reaction.

The three categories match three levels of awareness as a basis for action. At the 'consciousness' level, one is aware of the existence of uncertainty without it creating a strong emotional response; i.e., there is a balanced, if not positive approach. At the 'concern' level, one's consciousness of the situation is rather more serious and one feels more engaged emotionally. Finally, the 'reaction' level of one's emotional connection to the issue is strong and critical to the stage of creating serious stress and a negative response, even in association with others.

Similarly, participants' were asked about their own, personal reaction to the uncertainty that resulted from changes to organisational strategy associated with the global financial crisis. Again, the same

<b>Exhibit 11. Employee's Reaction to Uncertainty</b>	
<b>Links</b>	<b>Categories</b>
Not too bad for business Limited uncertainty Effects moderate Awareness of environment/changes Employees reacted well overall Open & transparent organisation	Consciousness
Unsettled by redundancies Some concern but staff understood and accepted necessary changes A little stressed Not happy about salaries – all staff had financial commitments	Concern
Staff feel threatened Nothing safe Uncertainty about industry as a whole Uncertainty about keeping jobs Worried about jobs A lot of unrest Threat of industrial action Friction & trouble over lost jobs Some in union disrupted operations	Reaction

<b>Exhibit 12. Participants' Reaction to Uncertainty</b>	
<b>Links</b>	<b>Categories</b>
No problems Heavy workload caused fatigue Knew job was safe Needed time to reassure staff Needed time to keep staff up-to-date Not really affected – some workload increase Didn't feel threatened myself	Consciousness
Limited uncertainty Some concern Accepted necessary changes Mostly worried about having to retrench people Was worried then relieved when I didn't lose my job	Concern
[No responses]	Reaction

<b>Exhibit 13. Organisational Support for Employees</b>	
Links	Categories
Retain open dialogue Honesty Consultation with union reps Uses an inclusive, consultative model	Plus
It doesn't Not much concern shown really Predominant culture is 'avoid' Respond aggressively Not well done Little support offered Uncertain business No specific action to handle employee reactions	Minus
Management surveys – feedback loops Numerous 'open-space' meetings to allow wide-ranging contributions Managers mainstay for employee relations	Interesting

three categories were used (Table 12). In this case, no research participants indicated that they were in the 'reaction' group. Judging from the links in the other two categories, it may be argued that, as senior officers in their organisation, they were aware of the uncertainty, but not threatened directly by it.

Finally, participants were asked to describe how their organisation coped with employee responses caused by the uncertain economic climate of the crisis. Fifteen different links were identified from key words used in the responses (Exhibit 13). One means of categorising the responses was to separate them into positive (Plus), negative (Minus) and neither plus nor minus (Interesting) groups using the PMI model (De Bono 1993).

## DISCUSSION OF FINDINGS AND CONCLUSION

Although, no research participants indicated that they were in the reaction to the crisis group or they were threatened by crisis and uncertainty (this can be explained by our sample characteristics, e.g. location in a wealthy state of Western Australia which was not significantly affected by the 2008 financial crisis), all of them admitted their awareness of the crisis and uncertainty. All respondents expressed an urgent need for improved communication both within and outside organisations, e.g. having meetings with key stakeholders and with other staff members in order to integrate and exchange knowledge from outside the organisation. This is aligned with previous studies (e.g. Savory, 2006) which reported that challenges of the economic environment require not so much discovery of novelty, rather, such environment requests rationalization and reconfiguring of existing knowledge. Our data demonstrates that the learning of new knowledge and rediscovery of existing knowledge is happening in collaboration with business associates and other actors of organisational nets. This finding also supports the previous literature on the role of strategic nets intentionally created by organisations and particularly intensively used in time of uncertainty as "safety nets".

This study investigated how organisations can identify new opportunities by prompt response to the challenges of the dynamically changing environment and flexible movement towards the market demand. This study is adding to the dynamic resource-based view of strategy by incorporating the assessment of the business networks of the chosen organisation and investigating how the organisation is learning from its clients and other network participants. Our finding is that in time of crisis and uncertainty organisations source the knowledge both within and outside. Our data highlights that uncertainty promote organisations' quest for ongoing learning, consultancy and collaboration with key stakeholders, closer customer and supplier involvement in product and service specification for major customers, and fostering knowledge exchange.

The results provide insight into the organisational learning in networks and developing dynamic capabilities in response to the changes in the external environment. Because organisations learn from the environment, including through their business networks, they can foster their internal knowledge transfer and organisational learning. This flexibility and speedy response to the market enable organisations to develop new sources of a competitive advantage and sustain existing competitive advantage. Organisational learning and knowledge are key drivers of dynamic capabilities which allow organisations to respond to the challenges of the complex and dynamic environment.

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