# Demo Industies

## MiProfile Culture Survey

### Executive Committee Briefing Paper

Report

# 1. Introduction

Demo Industries Limited (Demo) approached Human Dymensions to conduct initially a Global Risk and Safety Culture Survey using the MiProfile Diagnostic tool. Following extensive discussions the Survey was redesigned to sample 5000 participants. The Survey was conducted across all four divisions covering 20 countries.

The primary reason for conducting the cultural survey was to understand and confirm the fundamental core values and beliefs (expressed sub-culturally) that drive and shape Demo workforce's risk and safety mindset, practices and performance. The sub-culture is in a sense subterranean and is a division within and underneath culture that is more difficult to detect and analyse, often going "under the radar". A sub-cultural group often has a social-psychological-cultural formation that exists as a sort of island or enclave within the larger definition of the culture.

# 2. Project Aims and Survey Completion Summary

The aim of the Demo Risk and Safety Culture Survey Project is to provide a detailed analysis of Demo Risk and Safety Culture and to make recommendations for building and maintaining an effective culture in leadership, risk, learning and safety. The Project analyses:

- Risk and Safety climate (tangible and instrumental)
- Risk and Safety culture (functional beliefs and artifact)
- Risk and Safety sub-culture (deep seated and foundational drivers of values and beliefs).

There were in total 4,963 surveys completed out of a total invite of 6,905 participants. The Demo aggregated survey completion rate was 71.9%.

Figure 1:

| Division | Completed Survey Count | Invited | Completion Rate |
|---|---|---|---|
| B-Group | 316 | 431 | 73.3% |
| Demo | 25 | 30 | 83.3% |
| C-Group | 2183 | 3796 | 57.5% |
| CL-Group | 826 | 1008 | 81.9% |
| R-group | 1613 | 1640 | 98.4% |
| Total | 4963 | 6905 | 71.9% |

# 3. Demo Key Survey Result Findings

The key findings of the Demo Risk and Safety Culture Survey are summarised below. These preliminary observations are based upon the Survey results however, they need to be supported through a qualitative process including focus groups and benchmarking. The summary results are grouped according to cultural category.

## 3.1 Summary of Identified Strengths

1. Clear affirmation of Demo Senior Leadership.
2. High level of confidence and trust in Senior Management and Safety vision.
3. High percentage of respondents feel free to speak up about safety concerns.
4. Safety Breaches are perceived to be dealt with fairly.
5. Significant part of the workforce state they understand the intent and meaning risk.
6. At an operational level there is a solid sense of willingness to assist work colleagues.
7. Positive commitment to safety.
8. Length of service makes a difference.

### 3.2 Summary of Identified Areas of Concern

1.    Sporadic concern about leadership visibility.
2.    Lowered mindfulness and capacity to deal with the unexpected.
3.    Pockets of skepticism regarding safety vision and innovation.
4.    Clear gap between what is said about safety (espoused theory) and behaviour, what is practiced (theory in use).
5.    Safety is potentially compromised by cost and operational pressures.
6.    Degree of reticence to express "different" views about safety.
7.    Marked degree of fatalism e.g. accidents are inevitable despite declared understanding of what is meant by risk.
8.    Tendency to perceive that taking short cuts can be safe.
9.    Resilience displayed through problem solving is not strong.
10.   A significant number of employees feel unrewarded for extra effort and there is the strong possibility of a functional approach to work.

## Demo Aggregate Results – All question response variations
<u>Figure 2:</u>
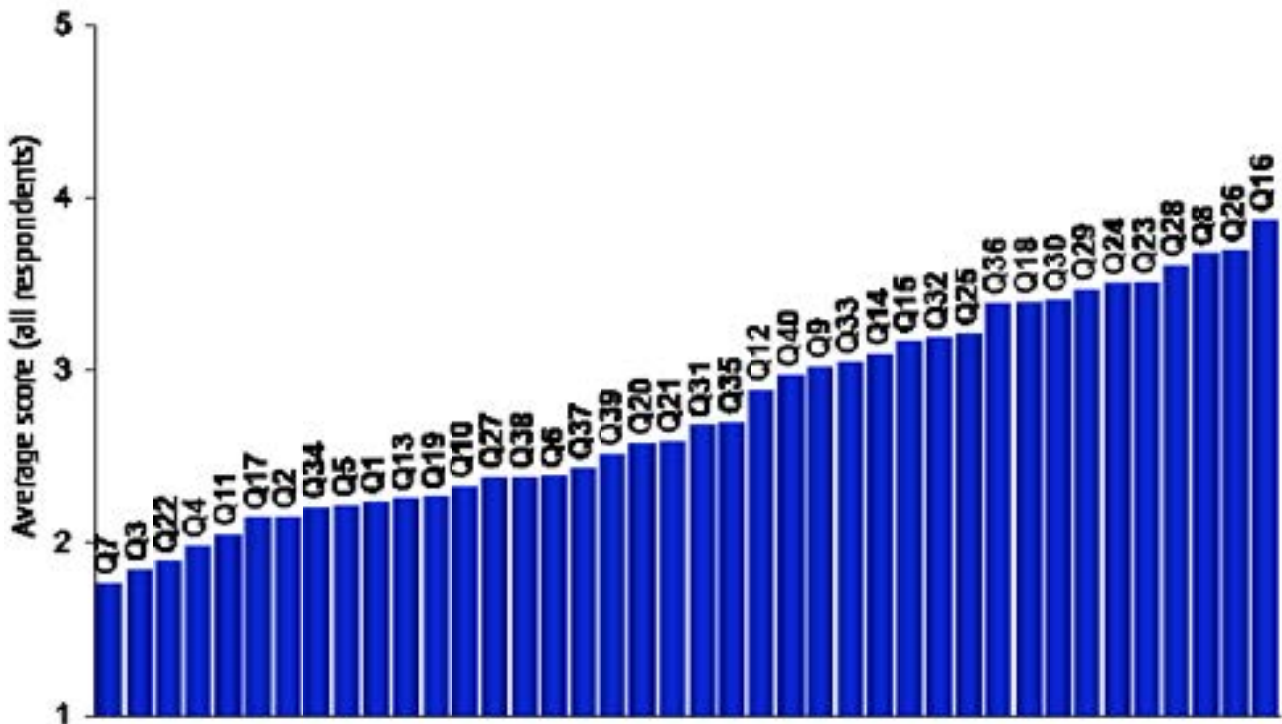


The above graph shows the average response across all the Divisions for each of the 40 statements. The scoring key is as follows: One (1) equals strongly agree and Five (5) equals strongly disagree.

### 3.3 Findings According to Survey Category

For more detail on category findings, please refer to Appendix 1

### 3.3.1 Leadership (77%)

There is clear trend which affirms the leadership of Demo. Whilst there is some level of concern regarding leadership visibility there is nonetheless a high sense of confidence and trust in the management and vision for safety in Demo.

### 3.3.2    Mindfulness (71.5%)

It is encouraging that a high number of respondents feel free to speak up about safety concerns without reservation or fear. However, there is a wide gap between confidence to speak up and perceptions of company mindfulness i.e. ability to manage the unexpected, develop resilience and problem solve. However, contrary to this positive trend there is a level of cognitive dissonance regarding time allocated to hazard and risk identification. In other words, employees feel free to raise concerns but their perception is that this does not always form a complete part of workplace problem solving.

There is a small pocket of skepticism directed towards safety vision and innovation. This needs to be carefully managed especially at the sub-cultural level. This skepticism is revealed in survey perceptions of short cuts, covering mistakes and operating procedures.

### 3.3.3    Cognitive Dissonance (53.57%)

Survey results indicate a clear gap between what is said about safety (espoused theory) and actual practiced behaviour (theory-in-use). There is a moderate belief in the workforce that safety is compromised according to context in terms of costs and operational pressures. The most concerning result in the area of cognitive dissonance is the perception of fatalism, which overshadows beliefs and values. Associated with this is a potentially dangerous perception of the rightness of "double speak".

### 3.3.4 Psychosocial Triggers (58%)

The Survey results indicate an evidential commitment to safety. This stands in contrast to the findings which indicate deep seated cognitive dissonance between espoused theory and theory-in-use. At a localised level more than one third of respondents confirm this finding. What this means is that there are embedded psychosocial beliefs which are invoked when context changes i.e., psychological beliefs are latent and triggered by social interactions despite the fact that the espoused management vision is respected. Another psychological pressure in the workplace is present in variations of views about safety. People feel free to speak up and indicate they do not feel threatened yet are still reticent about expressing a "different" view about safety.

### 3.3.5 Safety Systems (63.5%)

It is encouraging to note a confirmation in Demo safety procedures. It is also positive to note that if there are safety breaches they are dealt with fairly. There is a clear confidence in the systems of Demo whereas there is some concern about sub-cultural attitudes towards inconsistencies in system delivery. This is a perception about process more than structures.

### 3.3.6 Risk Intelligence (64%)

It is recognised that at the time of this Survey being undertaken that the Demo Safety Charter was in the early stage of deployment. Despite this fact there is an acknowledgement by a significant part of the workforce which understands the intent and meaning of Risk Intelligence. A general belief about fatalism indicates a high level of cognitive dissonance on this issue which needs to be addressed in the deployment of the Safety Charter.

### 3.3.7 Safety Priorities (62%)

There is a clear contradiction on the issue of short cuts and safety. What is of concern is that many respondents feel that short cuts can be taken but also confirm the notion that some short cuts can be safe. This stands in stark contrast to previous statements on safety systems. There is also a fundamental tension point between respondents who acknowledge that safety breaches are dealt with fairly and respondents who feel able to take short cuts. This raises questions about how safety breaches are determined and valued. There is a clear level of cognitive dissonance between respondents who feel safe at work yet believe accidents and incidents are inevitable.

### 3.3.8 Resilience (48%)

The issue of flexibility in safety problem solving and the belief that short cuts are safe is a significant issue raised in the Survey results. There are several differentials in this list which are of concern. There is a clear level of incongruence between safety as a core value, short cuts and flexibility in solving problems. There is a sense in which respondents believe work is fluid and changing according to context but there is a reduced perception of a capacity to manage and assess the hazards and risks associated with change.

### 3.3.9 Commitment (58%)

It is of some concern that a significant number of employees feel unrewarded for extra effort and appear to be "functional" in their approach to work. However, at an operational level there is a solid sense of communal purpose. The issue of time is important with regard to assessing risks and hazards with a moderate level of concern in the results that this was not satisfactory.

### 3.3.10 Risk (55.8%)

Survey results indicate that safety procedures are thought to be compromised when the context changes. There is also a perception that there is an unpreparedness for the unexpected or interruption in the work flow. This further confirms the above observation regarding insufficient time given to risk and hazard identification and assessment.

### 3.4 Divisional Findings

The following characteristics are held in common by all Divisions:

- There is a strong affirmation of leadership and management within all Divisions with the exception of CL-Group
- Safety is strongly and uniformly rated as a core value
- There is a high sense of openness to criticism regarding safety.
- There is a clear gap between what is said about safety (espoused theory) and behavioural practice (theory-in-use).
- A high proportion of employees in all Divisions believe that safety is affected by operational and cost pressures.
- A large proportion of the workforce do not feel completely safe at work, are fatalistic in outlook and have a low sense of satisfaction in their work.
- All Divisions have a moderate level of resilience and organisational learning capacity.

The following points summarise key characteristics distinctive to each Division.

### 3.4.1 B-Group

- There is a strong sense (80%) of preparedness for the unexpected.
- B-Group has the lowest level of dissonance of any Division although there is still over one third of the workforce who believe safety is affected by costs pressures.
- B-Group registers a lower embrace (48%) of Risk Intelligence beliefs and practices.
- More than 20% less employees, when compared to the other Divisions, are inclined to take short cuts.
- B-Group has a strong confidence in their problem solving capacity.

### 3.4.2 C-Group

- C-Group results are highly consistent with the Demo aggregate results.
- There is a wide divergence between confidence to speak up about safety issues and perceptions of mindfulness, including perceived "double speak", ability to manage the unexpected, resilience and problem solving.
- There is a high level of fatalism (41%) in the C-Group workforce.

### 3.4.3 CL-Group

- There is a strong level of negativity about senior leadership and management within CL-Group.
- Confidence in immediate management and collegiality are high.
- There is a marked negative trend in comparison to other Divisions, 18 of the 40 statements registering a lower response than any other Division.
- There is a high sense of openness to offer criticism regarding safety but this criticism is somewhat cynical and negative and not highly constructive.
- A high proportion of the CL-Group workforce (60%) are susceptible to taking short cuts, this is 25% higher than the average. The workforce also appears confused about proper procedures.

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The Question Response Variations graphs for each Division show which responses are statistically significant, that is those responses that significantly deviate from the average response. The Kolmorogov - Smirnov (KS) tool has been used in the statistical analysis. The KS tool measures the difference between two distributions. For the purpose of this Report, critical values of 1.36 and 1.63 represents respectively a 95% and a 99% confidence level that the two distributions are not the same. The blue bars which lie outside the grey shaded area indicate a significant difference in response from the average.

### 3.4.4 R-Group

- A solid number of employees (49%) feel rewarded for their extra effort.
- There is a high proportion of the workforce who are confused and unsure about safety priorities and safety systems.
- The R-Group workforce are concerned about time to assess risks and hazards and subsequent capacity to manage change and the unexpected.

## 3.5 Comparative Table by Cultural Category
Figure 3:

| Categories | Demo Aggregate | B-Group | C-Group | CL-Group | R-Group |
|---|---|---|---|---|---|
| Leadership | 77% | 82.25% | 78.25% | 67.5% | 79.25% |
| Mindfulness | 71.5% | 79.5% | 69.75% | 68% | 71.5% |
| Safety Systems | 63.5% | 74% | 65% | 61.75% | 60.75% |
| Safety Priorities | 62% | 72.5% | 64.5% | 57.5% | 64.25% |
| Risk Intelligence | 64% | 70.75% | 67.5% | 49.75% | 55.5% |
| Commitment | 58% | 65.25% | 56.5% | 55.25% | 60.25% |
| Risk | 55.8% | 64.25% | 55.5% | 57.5% | 63.25% |
| Cognitive Dissonance | 53.5% | 63% | 61.5% | 53.5% | 68.5% |
| Psychosocial Triggers | 58% | 60% | 56.25% | 55.5% | 52.25% |
| Resilience | 48% | 56.75% | 48% | 45.25% | 56% |

Just as there are observable differences between Divisions so too are there differences according to demographic profile.

# Demographic commentary

## 3.5.1 Length of Service

There is a consistent pattern in the survey results according to length of service, which can be applied to every question response. As response by length of service is analysed it is clear that there is a developing sense of cynicism after 24 months of service. The following diagram illustrates this pattern.
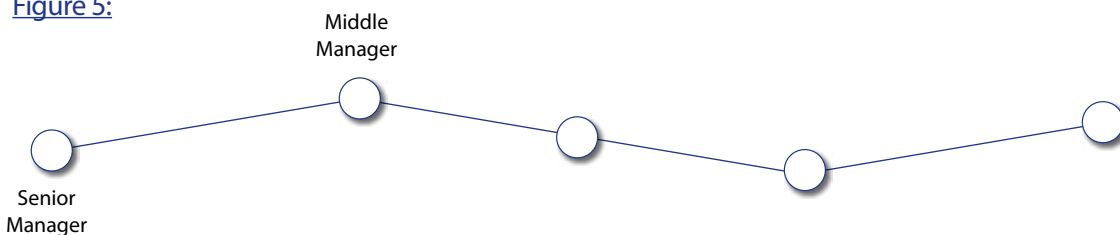
Figure 4:
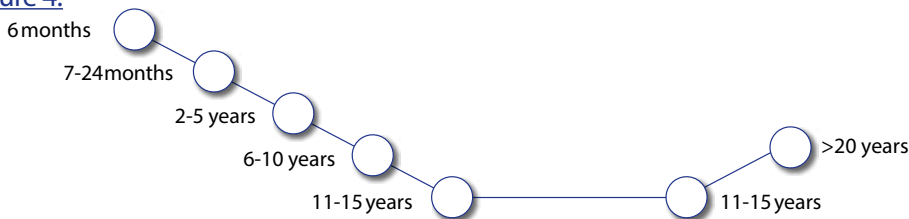


## 3.5.2 Employment Tier

In the majority of statements a pattern emerges with regard to developing skepticism according to employment position in Demo. This pattern is illustrated below.

Figure 5:

### 3.5.3 Age

There is no significant variation (by over 10%) in Survey result by age which demonstrates any marked deviation from the average. This raises a significant issue concerning length of service, development of skepticism and the relationship between service experience and safety perception. It is clear from the Survey that skepticism is developed at a sub-cultural level and sometimes instrumental level but is not demonstrated in age differentials.

### 3.5.4 Gender

There is general agreement in the majority of questions by gender. There are some statements which displayed approximately 5-10% variation. Some are noted below:

- Statement 10 - (People are encouraged to express different views on safety) female respondents feel less encouraged to express their views than male respondents.
- Statement 12 - (Operational pressures affect safety priorities) female respondents feel less pressured to compromise safety priorities under pressure.
- Statement 14 - (People talk about safety but don't follow what they say) males are more pessimistic than females about double standards in the company.
- Statement 15 - (People don't really believe in Risk Intelligence) male respondents perceptions were more negative than females.
- Statement 18 - (Safety systems come second to operational issues) male respondents were far more pessimistic (14%) than female respondents.
- Statement 21 - (It is possible to achieve Risk Intelligence) males were far more pessimistic (11%) than females.
- Statement 33 - (I just do my job, there is no reward in this company for putting in extra effort) far more females (12%) felt rewarded than males for extra effort.

## 4.  Safety Culture Survey Methodology

The MiProfile Cultural Survey Methodology is premised on the well established social science convention of "triangulation". Triangulation establishes validity by multi-modal cross disciplinary comparison in this case, through the use of comparative, qualitative and quantitative data validation points. The Survey Methodology is explained in detail  Human Dymensions website.

## 5.  Benchmarking Status

Benchmarking is a self-improvement tool for organisations. It allows organisations to compare themselves with others, to identify their comparative strengths and weaknesses and utilise that comparison to learn how to improve. Benchmarking is also a method of finding and adopting best practice both internally and externally. The Benchmarking Survey has been completed by and the data set is currently being analysed.

## 6.  Focus Group Follow Up

The MiProfile Focus Group methodology is the qualitative tool used to Triangulate data and validate findings. Once key findings from the Survey have been analysed and discussed the Survey findings will be supported by a targeted Focus Group process. Focus Groups agenda and questions will be developed and negotiated with key stakeholders before implementation.

# 7. Preliminary Recommendations

## Introduction

In light of the Culture Survey Results and the supplied Demo Occupational Health and Safety Data it is clear that key safety concerns are connected to:

- Ongoing development and enhancement of effective leadership
- Risk and Hazard analysis and practice
- People management processes
- Communication and ownership of the safety vision
- Performance effectiveness (as evidenced by dissonance between espoused safety theory and practice)
- Links between psychosociocultural factors and behaviours

In general terms the following broad areas are suggested for responding to the identified areas of concern for Employees, Middle Management/Supervisors and Senior Managers.

## 7.1 Employees - Core Areas for Consideration

7.1.1.  Risk assessment, Safety Observation and personal safety management skills

7.1.2   Hazard identification strategies and techniques

7.1.3   Safety communication

7.1.4   Understanding the implications of procedures, policy and WH&S regulations at a sub-cultural level

7.1.5   Developing employees' capacity to manage the unexpected and the sensemaking process

7.1.6   Building resilience and mindfulness within the wider workforce

## 7.2  Middle Management/Supervisors - Core Areas for Consideration

7.2.1   People management and team leadership skills

7.2.2   Hazard identification, risk observation and safety management skills

7.2.3   Building employee safety motivation and resilience

7.2.4   Performance development and appraisal

7.2.5   Leadership and supervision management

7.2.6   Managing the unexpected and the sensemaking process

7.2.7   Building resilience and mindfulness within the management and the wider workforce.

## 7.3  Senior Management - Core Areas for Consideration

7.3.1   Transformation Leadership

7.3.2   Understanding and managing Employee subcultures

7.3.3   Vision and safety culture translation

7.3.4   Safety performance development

7.3.5   Building resilience and mindfulness

7.3.6   Monitor progress through resurveying in 12 to 18 months

| Specific Finding | General Recommendation | Specific Recommendations |
|---|---|---|
| 1.1 There is a clear gap between what is said about safety (espoused theory) and behavioural practice (theory-in-use). | Analyse through Focus Group process. | Conduct an audit of communications, reporting and etiology at corporate and sub cultural levels to determine and address gaps. |
| 1.2 A high proportion of employees in all Divisions believe that safety is affected by operational and cost pressures. | Analyse through Focus Group process. | Utilise the Focus group process to determine and validate areas of strength/weakness and where safety is perceived as being compromised. Conduct targeted Site Reviews to appropriately identify (i) concrete examples of where cost and time pressures are impacting upon safety and (ii) perceived safe short cuts. |
| 1.3 A large proportion of the workforce do not feel completely safe at work, are fatalistic in outlook and have a low sense of satisfaction in their work. | Review issue of fatalism in Focus Groups. | At the Divisional level establish Work Groups to identify key fatalism drivers. |
| 1.4 Levels of resilience, learning, mindfulness and a sense of preparedness for managing the unexpected are low. | Introduce sensemaking and mindfulness programs to the workforce as tools for achieving risk intelligence. | Deploy specialized programs on resilience, problem solving, sensemaking and mindfulness as tools to prepare for the unexpected. |
| 1.5 There is a significant sub-cultural level of doubt regarding Risk Intelligence beliefs and practices. | Examine comprehension, congruence and understanding of Risk Intelligence at all levels through Focus Groups. | Target communication gaps in Risk Intelligence. Develop an enactment program utilising micro-training techniques. |
| 1.6 Cognitive dissonance regarding time allocated to hazard and risk identification. | Comparative Benchmark to validate allocated times. | Review safety systems and conformity with safety tools deployment expectations. |
| 1.7 Sporadic concerns about leadership visibility | Time management issues targeted in management interviews. | Leadership and management training and coaching. Supervision induction program. |
| 1.8 Pockets of skepticism regarding safety vision and innovation. | Review through Focus Group process. | Audit of communications and etiology at corporate and sub cultural levels to determine and address gaps. |
| 1.9 Degree of reticence to express "different" views about safety. | Validate through Focus Group process. | Introduce a Division wide recognition program for designing and implementing Safety Innovations |
| 1.10 A significant number of employees feel unrewarded for extra effort and there is the strong possibility of a functional approach to work. | Explore through the Focus group process. | Evaluate recognition processes (intrinsic and extrinsic) in management and supervision. |
| 1.11 Tendency to perceive that taking short cuts can be safe. | Understanding the implications of procedures, policy and OH&S regulations at a sub-cultural level | Conduct Psychology of Safety training, develop safety champions/mentors and introduce peer to peer observations and peer safety coaches. |

| Specific Finding | General Recommendation | Specific Recommendations |
|---|---|---|
| 1.12 High ambivalence about the nature of context changes i.e., employees believe work is fluid and changing according to context but a reduced perception of a capacity to manage and assess the hazards and risks associated with change | Review and evaluate effectiveness of current risk observation and hazard identification tools. | Deploy proactive training on preparedness for change by enhanced resilience, sensemaking and mindfulness. |
| 1.13 There is a sense in which cynicism develops with length of employment and by role. | Use the Focus group process to look at antecedents of cynicism. | Evaluation of staff appraisal, selection and succession process. |
| 1.14 Employees believe not enough time is given to risk assessment and hazard identification. | Analyse through the Focus group process. | Review safety observation, risk assessment and management skills and develop enhancement programs. |

# Key Cultural Drivers

It is critical in deploying any change process that the leadership within Demo utilize a Social-psychological approach to motivation, learning and use of power in order to effect sustainable change. The following psychosocial elements require careful consideration:

## 7.4 (a) Trust

There can be no change, development or transition without the establishment of trust. To establish trust takes significant time and skill. In the psychosocial approach the development of the dynamic work community is central to the establishment of trust.

## 7.4 (b) Climate (Ethos, Place and Space)

The rate and embracing of change will be limited unless people enter an atmosphere which generates trust, engagement, motivation, recognition and learning. A climate of acceptance and respect is foundational to establishing a positive climate.

## 7.4 (c) Structure

Change relies upon a structure (providing a degree of certainty, security and meaning) which demonstrates through the methodology of organisation that people are valued and supported. A structure which disempowers people and limits freedoms and choice is essentially de-motivating.

## 7.4 (d) A Change Culture

The essence of all change requires the inclination to change, the "want" or "will" to change. Recognition and reward in a measurable form are critical to this process, as is methodology and how people are engaged.

## 7.4 (e) Engagement

The key to engagement is acceptance of "the other" and valuing people's contribution despite circumstance and history.

## 7.4 (f) Meaning and Purpose

People will not change unless they see "sense" in the change and some positive outcome for themselves. The change management process needs to be a "sensemaking" process which is intertwined with other key change elements such as trust, motivation and

engagement. It is meaning and purpose which drives the development of resilience.

## 7.4 (g) Ability and Capability

Change will not be effective unless the change agent has the ability to drive and direct change (without overpowering others) and unless the employee has the capability/capacity to change.

# Appendix 1

## Detailed Sub-Cultural Analysis

The sub cultural analysis is structured according to the ten main cultural categories and analysis of the core beliefs at a sub cultural level which drive each cultural category. In particular, it examines inconsistencies between statements, incongruence in values and expressions of belief, deviation from espoused theory and theory-in-use (what is practiced) and expressions of cognitive dissonance.

For the purposes of safety culture analysis it is important to observe that the workforce testify at a rate of 84% to safety as a core value yet 42% declare a sense of inevitability about accidents. When this divergence is coupled with a high declared understanding of Risk Intelligence it becomes clear that there is an underlying set of beliefs which are present in the workforce which may act as a significant constraint in implementing a Risk Intelligence Charter.

### 1. Leadership

There is clear trend which affirms the leadership of Demo with consistent responses in statements 1, 2 and 11 all rated at around 70% or higher. 84% of respondents have safety as a core value in their work (statement 3) yet only 60% really affirm a whole of company vision for Risk Intelligence in statement 23. It is expected that there would be a much stronger alignment between individual and corporate vision for safety. A similar incongruence is apparent between confidence in the vision of Demo (80%) and confidence in the leadership of Demo (70%) at the Senior level. These inconsistencies in result indicate some variance in perception (an egalitarian swing of 10%) about what makes for effective leadership and what the leadership communicates.

### 2. Mindfulness

89% of respondents feel free to speak up about safety concerns. However, there is a wide gap (up to 25%) between confidence to speak up and perceptions of company mindfulness i.e. ability to manage the unexpected and problem solve. It would be expected that there would be a much stronger correlation (less than 20-30%) between the company's readiness to address something that goes wrong including providing feedback (statements 5, 20, 29, 38) and the participation of employees in resultant problem solving. This is more accentuated by a perception that not enough time is allocated to hazard and risk identification (statements 6 and 37). In other words, employees feel free to raise concerns but their perception is that this does not form a complete part of workplace problem solving.

There is some concern in the incongruence between responses between statements 5 and 20. Only 54% of respondents feel that operating procedures are flexible enough to manage the unexpected with a very high level of respondents expressing uncertainty about the concept.

### 3. Cognitive Dissonance

There are a clear set of statements which indicate a gap between what is said about safety (espoused theory) and behaviour or practice (theory-in-use). Only 38% of respondents believe that cost pressures (statement 9) do not affect safety. This is directly reflected in the fatalism expressed in statement 40 where 38% believe accidents are inevitable. Only 34% believe that operational pressures (statement 12) do not affect safety priorities. Only 45% of respondents believe that people do what they say (statement 14).

30% of respondents do not believe in Risk Intelligence (statement 15) which is of some concern as 85% claim they know what Risk Intelligence means (statement 22). 23% of respondents stated that safety systems of Demo come second to operational issues (statement 18) yet 42% stated that operational pressures affect safety priorities (statement 12). This means that there is a differential of 19% who believe that under pressure safety systems falter. This also confirms the fatalism finding in statement 40. 39% of respondents believe that they can take such as a thing as a calculated short cut (statement 25). In spite of these many examples of cognitive dissonance in up to half of the workforce, people still affirm the position (statement 26 - 67%) that safety still comes first in the company. This is a dangerous position as it perpetuates the perception of the rightness of "double speak". 23% believe that the job has to be done regardless of safety issues.

## 4. Social-Psychology Triggers

What this means is that there are embedded psychosocial beliefs which are invoked when context changes i.e., psychological beliefs are latent and triggered by social interactions despite the fact that the espoused vision and conversation is cognitively orthodox. What is interesting is that people feel free to speak up (89% statement 7) yet only 75% state they are not victimised for it. This gap confirms previous discussion on the differential between speaking up and speaking up "differently" about safety issues.

## 5. Safety Systems

There is strong confirmation in Demo's safety procedures (statement 17 - 77%) despite the fact that there is an underlying belief that these are compromised by context. This underlying difference is confirmed in statement 18 by a drop of 23%. Whilst they acknowledge that the safety systems are determined as appropriate they sometimes come second to operational issues.

## 6. Risk Intelligence

Despite the fact that 85% clearly understand what is meant by Risk Intelligence (statement 22) only 55% believe it is achievable (statement 21). The statement on understanding of Risk Intelligence is the most decisive in the whole survey statement set with only 4% (lowest registered negative) stating that they did not know the meaning. 85% understand what Risk Intelligence is, 84% make safety a core value but only 60% of respondents feel a sense of ownership of the Risk Intelligence concept. Again, this is of some concern when 42% of respondents believe accidents and incidents are inevitable (statement 40). These two findings are in direct contradiction and provide evidence of a strong underlying subculture of cognitive dissonance.

## 7. Safety Priorities

The issue of short cuts has long been an indicator of safety compromise and in the case of statement 25 there is a clear and intentional contradiction in the statement itself which supposes that short cuts can be safe. What is of concern is that 39% of respondents feel that short cuts can be taken but also confirm the notion that some short cuts can be safe. This stands in stark contrast to previous statements on safety systems e.g. There is a fundamental tension point where 55% believe that safety systems are good (statement 17) while 39% (statement 25) believe they can bypass them. There is also a fundamental tension between 70% of respondents who acknowledge that safety breaches are dealt with fairly and 39% of respondents who feel able to take short cuts. Again, 69% of respondents acknowledge that safety comes first (statement 26), 84% state safety is a core value, yet only 49% believe they should not take short cuts. Only 68% of respondents (statement 27) always feel safe at work which is noteworthy considering that 42% believe that accidents and incidents (statement 40) are inevitable.

## 8. Resilience

The issue of flexibility in safety problem solving and the belief that short cuts are safe is quite an issue presented in the Survey results. It is instructive to list the following:

- Fatalism - statement 40 - 42%
- Safety as a core value - statement 3 - 84%
- Flexibility in work - statement 29 - 58%
- Short cuts are contextually acceptable - statement 25 - 39%

There are several differentials in this list which are of concern. There is a clear level of incongruence between safety as a core value, short cuts and flexibility in solving problems. 50% of respondents state that they able to work around operational problems (statement 31) yet many statements regarding compromising safety due to context register 10-15% higher than this statement. In other words, there is a sense in which respondents believe work is fluid and changing according to context but a reduced perception of a capacity to manage that change.

## 9. Commitment

Work satisfaction and meaning are central to establishing a safe work culture. It is of some concern that 37% feel unrewarded for extra effort and are only "functional" in their approach to work. However, at an operational level (statement 34) there is a solid sense of communal purpose (77%). Unfortunately this contrast does not correspond well with previous affirmation of leadership and management (70%) and an underlying sense of self and localised interest. What this indicates is a sub-cultural dissonance between an ascribed sense of confidence in corporate leadership, a localised sense of purpose where people have trust and respect in their colleagues but a diminished sense of meaning to belonging to the wider Demo corporate entity. This tension point develops between a reduced respect for middle management and a localised respect for the colleague which tends to

solidify ambivalence in commitment and myth making in practice. This explains how people can state high confidence in safety systems and leadership (statements 1,2 and 4) while at the same time hold different perceptions of safety practice.

## 10. Risk

The issue of problem solving capacity is directly connected to resilience and the capability to assess risks and hazards. 62% of respondents thought that there was sufficient time to assess operational problems (this is congruent with statement 6). A similar result (approximately 60%) is also reflected in statements regarding pressures on safety and various contextual constraints. In statements 18, 25 and 28 respondents indicate that safety procedures are thought to be compromised when the context changes. There is also a perception at the rate of 69% and 54% that respondents feel prepared for the unexpected (statements 5 and 20). Given these factors it is crucial to note in statement 37 that only 62% of respondents feel that proper time is given to risk and hazard identification and assessment. Therefore, when context varies, resilience is diminished and pressure is placed upon the system. There needs to be a greater focus on proper assessment and procedural preparedness to safeguard against the manufacture and enactment of risks, hazards and incidents. This might explain why 42% of respondents feel fatalistic in regard to accidents (statement 40).

A critical part of learning and the development of resilience is the quality of communication and feedback. In this regard 68% feel they receive adequate feedback about safety problems and actions. In light of responses about victimisation (statement 16), diversity (statement 10), discipline (statement 32), and speaking up (statement 7) it is a concern that perceptions of feedback are not higher. Related to this only 57% of respondents feel that operating procedures were reviewed enough to accommodate changes. This is important in light of previous comment about resilience and preparedness for the unexpected. If feedback is not strong and there are incongruities in speaking up about safety issues it is concerning that assessment of risks and hazards and review of operating procedures is not stronger.

# Appendix 2

## Survey Structure

### 1. Instrumental (Tangible/Climate) Outcomes

The survey provides direct analysis of the organisational climate through tabulating each statement according to the level of positive or negative response and by key demographics.

The derived knowledge from this level of analysis provides information to Demo about:

### 2.   Cultural Outcomes

This level of analysis provides a cultural aggregation of information by comparing statement type in groups according to ten (10) key categories (referred to more fully in the methodology). These categories are based on the latest research from International Scholarship on the Social Psychology of Safety and include:

- Leadership
- Mindfulness [3]
- Cognitive Dissonance [4]
- Psychosocial Triggers
- Safety Systems
- Risk Intelligence
- Safety Priorities
- Resilience
- Commitment
- Risk [5]

These cultural categories are plotted and graphed through the use of the Denary Analysis Tool (Figure 6). This enables the trends between statements and categories to be easily observed. This is used in tandem with the Survey Quadrant Tool (Figure 7).
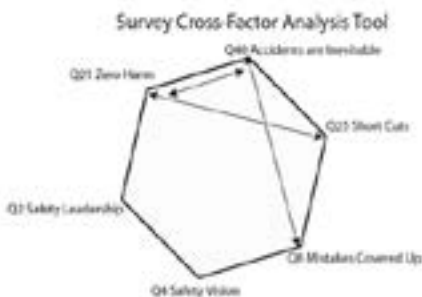
Figure 6:



Figure 7:

## 3. Sub-Cultural Outcomes

At the core of the Survey is the capacity to delve more deeply into safety sub-cultural types. This is achieved by cross factor analysis i.e. by using embedded checks and comparative threads and themes in the MiProfile Risk and Safety Culture Survey to extract key areas of contradiction, uncertainty and tension points.

- General confidence in senior management
- Senior management leadership in safety
- Safety as a core value
- Confidence in the safety vision of the company

- Safety preparedness
- Time identifying potential risks/hazards
- Openness about safety concerns
- Freedom of information

- Cost pressures affecting safety priorities
- Tolerance of diversity of views on safety
- Senior management integrity
- Operational pressures and safety

- Commitment to safety
- Double standards - lip service
- Belief in risk intelligence
- Reporting and respect

- Standard of safety procedures
- Safety system importance
- Manager maturity in safety breaches
- Procedural preparedness

- Resilience achievability
- Understanding of Risk Intelligence
- Senior management commitment exclusivity to zero harm
- WHS 'lip service'

- Espoused safety and reality
- Safety priorities
- Personal safety awareness
- Work priorities and safety

- Management tolerance of work flexibility
- Worker independence
- Problem solving
- Immediate management discipline
- Intrinsic safety values
- Altruism in work safety
- Senior management visibility
- Time pressures, risks and hazards

- Safety assessment
- Effective communication/feedback
- Change preparedness
- Fatalism

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3 Mindfu lness is much more than simply "having your wits about you" in a similar way that sensemaking is much more than just making sense. Weick's research into High Reliability Organisin (HRO) has established the key qualities needed to manage safety mindfully are:

- Preoccupation with failure
- Reluctance to simplify interpretations
- Sensitivity to operations
- Commitment to resilience and,
- Deference to expertise

4 People construct frameworks in order to explain, understand and comprehend the stimuli which surround them. When they experience stimuli which does not fit into that framework or cognitive map they experience a sense of cognitive dissonance and either reframe their thinking (manage the contradiction) or make the stimuli fit their thinking. Understanding how employees construct (sensemake) frameworks and maps is crucial in understanding cognitive dissonant hot spots and poor sensemaking in an organisation's safety culture.

5 Resilience is understood to have levels:

- Improvisation, learning and bricolage
- Virtual role systems
- The attitude of wisdom and,
- Respectful interaction

Resilience is important because it explains why people under pressure and stress tend to regress to their most habituated ways of responding.