Safe and Productive Design Through the Retail Supply Chain

Presenter: David C Caple
Director, David Caple & Associates Pty Ltd
Adjunct Professor, La Trobe University
Supply Chains and Networks

Strategic Outcomes

1. Supply chain and network participants understand their cumulative impact and actively improve the health and safety of the supply chain.

2. Commercial relationships within supply chains and networks are used to improve work health and safety.

3. Industry leaders champion work health and safety in supply chains and networks.

Ref; SWA Australian Strategy 2012 - 2022
Retail Supply Chain

Product Buyer
Logistics and Distribution
Store Delivery and Promotions
Store Layout & Planograms
Customer Service
Product Buyer

✓ Focus on market segment requirements
✓ Selecting innovative and market driven products
✓ Price driven process to meet buyer’s budget and KPIs
✓ Packaging and transport costs minimized to optimize shipping container utilization
✓ Consideration of online shopping processes
Logistics and Distribution

✓ This is where profit or loss in the retail sector can be “make or break”.
✓ Shipping scheduling to meet product delivery to store needs e.g. Christmas or Boxing Day sales
✓ Distribution Centre (DC) handling and storage capacity
✓ Order picking processes and repackaging systems
✓ Store order and delivery systems
Store Delivery & Promotions

✓ Store design and allocation of “reserve” space in the back of stores
✓ Access to loading docks and booking times in large shopping complexes
✓ Materials handling equipment availability in the stores
✓ “Push” stock for planned marketing promotions sent to stores
Store Layout & Planograms

- Allocation of Stock Keeping Units (SKU’s) to stores
- Number of “Facings” in planogram
- “Eye height is buy height” in shelf allocations
- Use of “capping” above shelves for left over items
- Stock replenishment processes
- Handling of packaging and waste
Customer Service

- Self serve and “customer service” models
- Use of store provided trollies and baskets
- Checkout design and stock security systems
- Assistance of large or awkward items to carpark
- Buy large items from store display but deliver directly to home from the warehouse
Ergonomics Opportunities

1. Identify root cause of risk.
2. Challenge the business model.
3. Packaging and integrated logistics.
5. Product promotion and peak seasons.
Additional Case study
Supply Chains – Law & Order

Government Policy

– recruit more police officers
Supply Chains – Law & Order

Supply Chain impacts on workloads of;

1. Informants
2. Prosecutions Officers
3. Legal Aid
4. Courts
5. Prisons
6. Support services e.g. family support
What is a hazardous manual task?
✓ “. defined in the WHS Regulations, means a task that requires a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any person, animal or thing involving one or more of the following:
✓ repetitive or sustained force
✓ high or sudden force
✓ repetitive movement
✓ sustained or awkward posture
✓ exposure to vibration.”

Health and safety duties in relation to hazardous manual tasks?

✓ “A person conducting a business or undertaking has the primary duty to ensure, so far as is reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the business or undertaking.

✓ The WHS Regulations include specific obligations for persons conducting a business or undertaking to manage the risk of a musculoskeletal disorder associated with a hazardous manual task.”

Refocus on injury prevention models

“Supply Chain Ergonomics”

Focus on the Supply chain system for root causes and develop a holistic approach to prevention of injuries.
Future Challenges – Supply Chains including task based assessments

Step 1; Conduct the “big picture” supply chain analysis relevant to issues under consideration
Step 2; Identify the root causes and inter relationships between the supply chain elements
Step 3; Conduct the detailed task assessments where required
Step 4; Reassess the impact of the risk controls against the supply chain elements
Thank you,

David C Caple