#### Excerpted from Appendix A

p. 185, The Demand Driven Adaptive Enterprise by Carol Ptak and Chad Smith (Industrial Press, 2018)

## The Demand Driven Skills Model

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Much has been written about how a Demand Driven Operating Model (DDOM) protects and promotes flow with stock, time, and capacity buffers in companies facing competition in today's VUCA (volatile, uncertain, complex, and ambiguous) world. What about the people and skills that it takes to operate, support, and adapt a DDOM?

Too many businesses experience symptoms of flow disruption due to missing skills at critical times. Depending on how often and how long it takes to find an alternative, skills scarcities are like bottlenecks, obstructing a company's profitability, growth, and capability to innovate.

In order to anticipate future flow blockages due to missing skills, decisions to finance hiring or training for specific skills are taken at the strategic level, with feedback loops at the tactical level to secure implementation. A visual approach to priorities can be used in a similar fashion as stock, time and capacity buffers. Assessment of the company's Skill buffer enables monitoring of the progress in change management.

# The Demand Driven Skills Model (DDSM)

Used in combination with the DDOM, the DDSM allows visualization of where, in its own complex system of departments and workshops, a company must invest to protect its flow (figure 1). To acquire and maintain the essential resource of human skill, the DDSM addresses where the priorities are by means of a fourth buffer type, a skill buffer, to be used in combination with the other buffers of the DDOM.

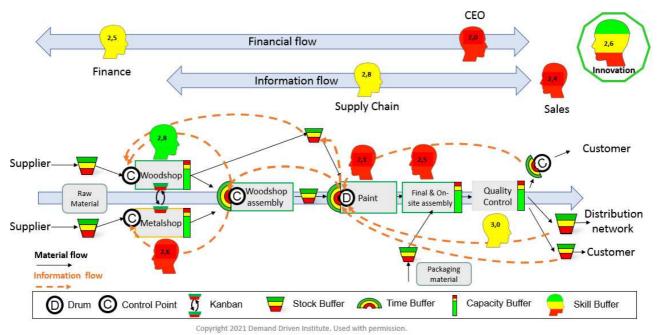


Figure 1: Example of a DDSM combined with its DDOM including a Drum Buffer Rope, during DDI trainings

### The Skill Buffer Symbol

The symbol for the skill buffer is a head shown in profile, facing left (when no training is in progress) or right (when training is in progress); red, yellow, or green in colour; marked with a number from 1.0 to 4.0. Red means there is a short-term risk to flow if only one employee can manage 100% of processes related to the skill. Yellow anticipates a risk of insufficient contingency for variability. Green means all is good.

This first step is the visual approach to gaining missing skills per department. As a second step, when a company has matured in protecting flow, the colors can be used to show the availability of internal trainers to teach innovation that will promote flow in each of the key processes of the company.

#### The Multiskills Matrix

The numbers shown in the skill buffer symbol derive from a simple calculation based on the Multiskills Matrix (figure 2). This matrix describes the level of skill each employee can demonstrate for any function. All the functions will be listed in order to encompass all the current processes of the company.

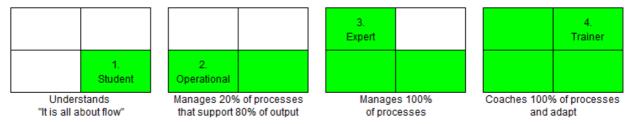


Figure 2: The four levels of skill in the Multiskills Matrix

The requirements for each level must be customized to each company's activity and maturity. The number shown on the skill buffer symbol indicates the average level of employee skill, calculated using the green squares, that a group of skills, a function or a department can demonstrate.

As with all Demand Driven buffers, color is considered first. Then, within the highest priority color, strategic decisions about training plan priorities start with the group of functions having the lowest number.

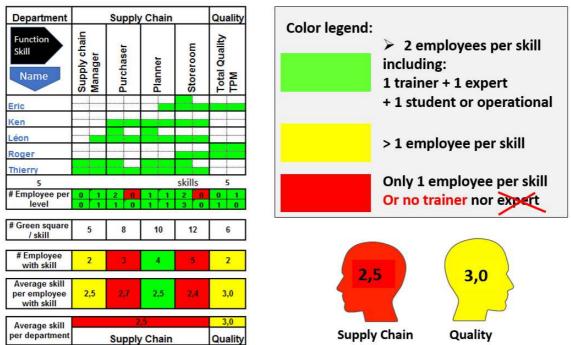


Figure 3: DDSM promoting innovation: calculation for two departments shown in Fig.1 before DDI trainings