



A Capability and Maturity Model for Workforce Planning

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Abstract A model is presented for discussion of Work Force Planning in general. A set of specific models and criteria are suggested for evaluating and managing an organization's capability and maturation process for the Work Force Planning function.

A Capability and Maturity Model for Workforce Planning

The challenges of the increasing pace of change in technology, demographic upheavals, and rapidly changing business models have led to the development of a suite of techniques (composed of old and new approaches) to assist the Human Resources professional in providing access to the right resources at the right time. This developing practice area has been referred to as Workforce Planning (WFP) and can now be found in some form in most corporate HR departments. It is the purpose of this paper to propose a model that can be used by interested organizations in assessing the capability they have in Workforce Planning, and the maturity of the application of these capacities in their organizations. Such an assessment may assist in the development of new capabilities, where gaps exist, or the maturation of existing practices. It may also be useful in peer comparisons and benchmarking activities. This Capability and Maturity Model (CMM) is an extension of the ideas developed in similar work by the software development community who have a working Capability Maturity Model. It will consist of a set of stages (levels) in the development of both capability *and* in the maturity of the application of these capabilities within the business context.

Workforce Planning: a working definition

Before we try and develop a Capability and Maturity Model for Workforce Planning, it is necessary to develop an agreed upon definition and a model for Workforce Planning so that we can communicate clearly and have a firm base from which to build the Capability and Maturity Model constructs. Dynawise has postulated the following definition of workforce planning:

Capability and Maturity Model

“The model will allow practitioners to view the current state of their practice and to focus on areas that may be lagging in capability or to divert effort to areas that promise increased benefit.”

The development of plans and strategies by which an organization acquires, develops and retains the right number and types of people, with the right skills, in the right jobs, at the right time, generating the right results.

It is often manifest as both short-term (annual or less) and longer term (multi-year) focused activities. In the immediate (short) term Workforce planning:

- Is a process through which we develop a short term (12 months) position forecast identifying the number of positions, and specific skills required
- Is a process that defines in detail (disciplines, job families, level, employment status) personnel requirements
- Enables us to develop a timeline for recruiters so they can be proactive in their recruitment strategies and resource planning.
- Is a mechanism for figuring out what we have, what we need, what our organization looks like
- Is a control mechanism for leaders for counting and forecasting their workforce

In the longer term, WFP provides a multi-year outlook on expected projects and business changes, and the planned set of actions to address these, and also is intended to guide the Short Range Workforce Plan and annual budget cycle.

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Workforce Planning

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A Model of Workforce Planning

The activities that make up a workforce planning practice may be represented by the following model (see Figure 1).

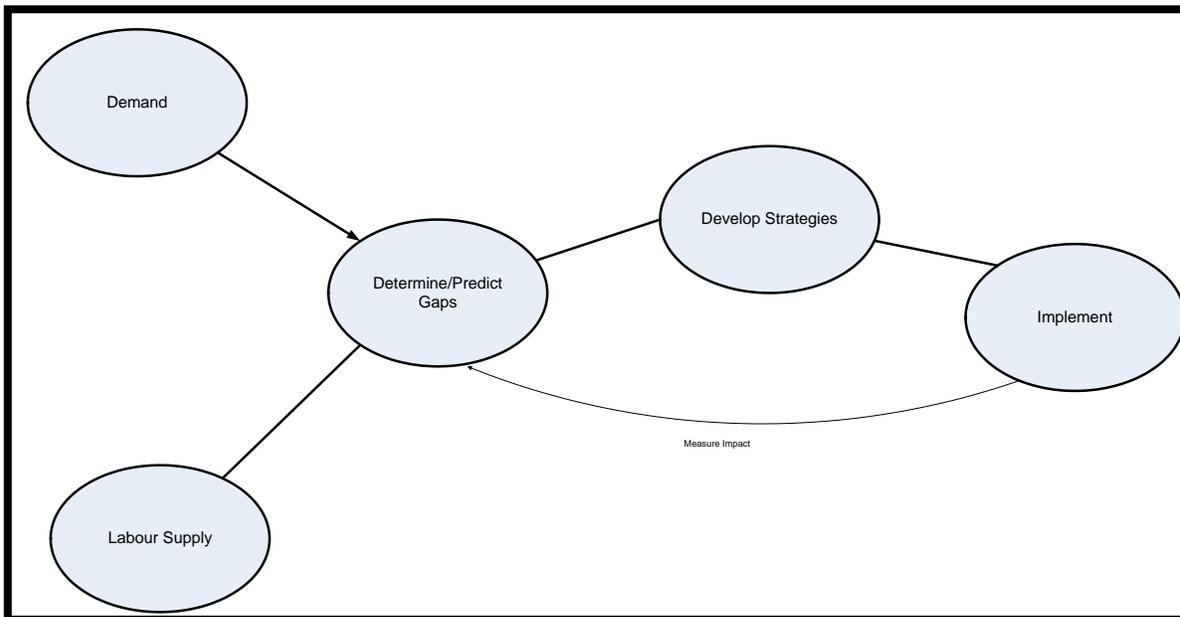


Figure 1
A basic model of Workforce Planning

The five basic nodes shown here are the basic activities needed to execute the Workforce planning function. Let us characterize each node by the activities associated with it.

Demand: This is the act of determining and articulating the likely demand for talent in the future. This requires an understanding of the driving forces behind the demand and possible variations in the business context that will affect these drivers. For example:

- Business plan impacts on people requirements and capabilities (e.g. planned growth/decline, policy changes, initiatives, change in focus, regulatory impact, other)
- Environmental impact and business options that drive different scenarios on requirements
- Work fluctuations impacts (e.g. seasonal impact, business cycle impacts)

Supply: It is necessary to understand both the resources that exist or are being developed internally, and the availability of resources from external sources.

From an *internal* standpoint it is necessary to develop and maintain an understanding of:

- Current supply available for transfer, promotion, or re-deployment
- Turnover predictions and reasons for leaving
- Internal movement (modelling)
- Retirement predictions and other
- Demographic analysis
- Productivity & flows
- Current skill sets and skill sets under development

From an *external* point of view it is necessary to develop and maintain an understanding of:

- Market/competitive conditions
- Local and distant labour availability and forecasts
- Anticipated graduates in disciplines
- Anticipated new hire turnover
- Micro and macro trends (e.g. generational differences)

Determine/predict gaps: Having established some handle on the supply and demand situation it is needful to identify existing gaps and mismatches and to postulate the future development of such. This requires:

- Work Force models with supply/demand
- Current and projected gaps
- Identification of key impacts and levers
- Scenarios based on business options
- Understanding of cost impacts (turnover/business opportunity/other costs).

Develop strategies: Having identified the challenges (present and future) it is necessary to develop a strategy (or set of strategies) to:

- Address key impacts and use key levers
- Develop a sourcing strategy & recruitment plan
- Develop a retention plan
- Develop a productivity improvement plan
- Develop talent management plans
- Identify impacts on policy and total rewards
- Articulate business plan integration & communication approaches

Implement: Finally it is necessary to actually implement the strategies developed:

Determine/Predict

Gaps:

“Having established some handle on the supply and demand situation it is needful to identify existing gaps and mismatches and to postulate the future development of such.”

- Communicate to impacted people and areas of the business
- Integrate into business activity
- Execute the strategies

To support and direct these activities and to adjust for changes in the surrounding reality two additional functions are required:

Measurement of impacts and feedback for updates and improvements: It is important to measure the impacts of the strategies executed and to feedback necessary changes in the model and assumptions used in developing them.

This includes:

- Monitor key model impacts (KPI's and metrics)
- Assessing if gaps are closing
- External benchmarking
- Update of the various WFP models

Governance and accountability: It is necessary to establish the appropriate management structures to articulate the ownership of, and accountability for, Workforce Planning and to ensure that:

- Roles are defined
- Resources are in place
- Processes are developed and maintained
- Results are achieved

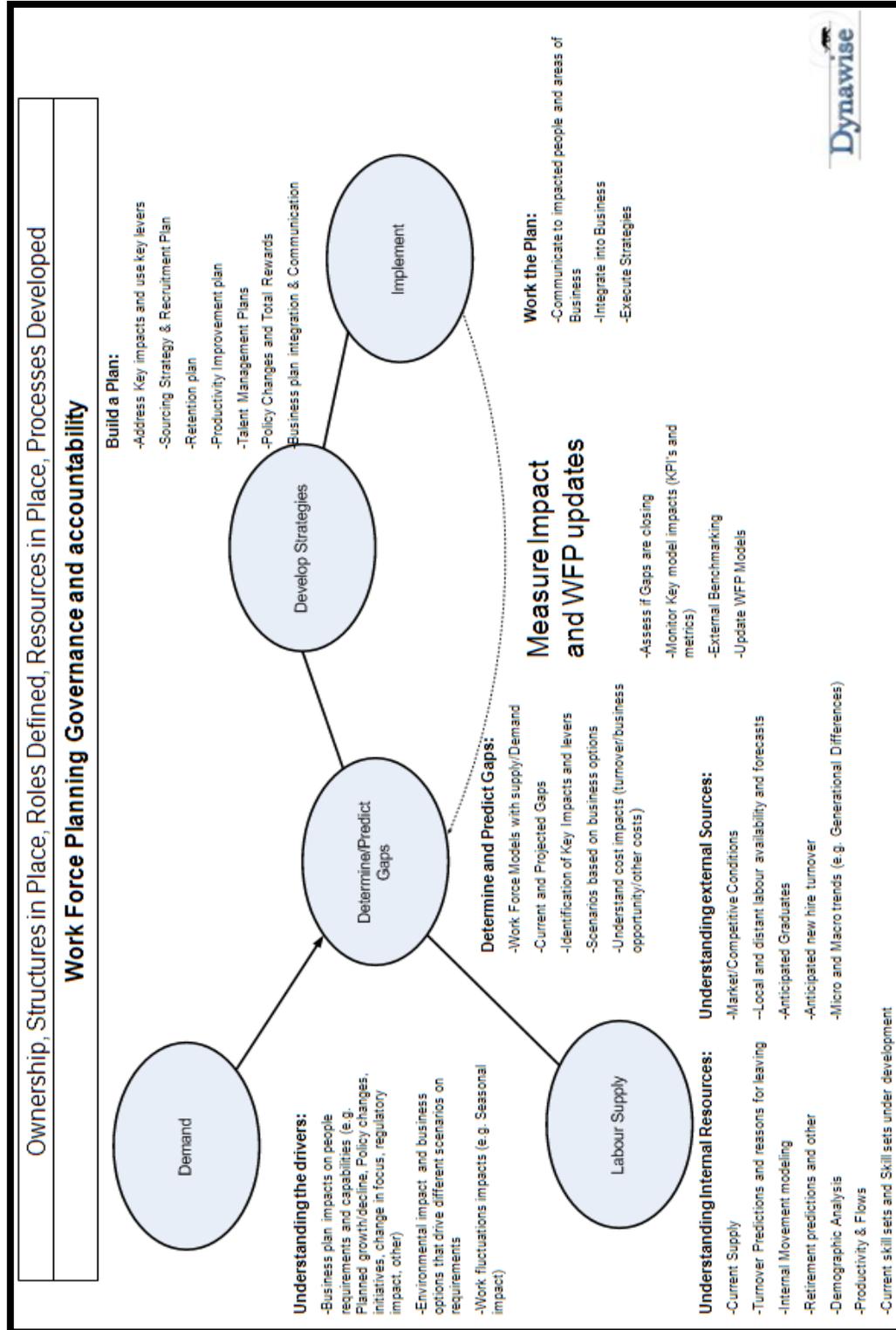
These concepts are collected and summarized in Figure 2.

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Capability and Maturity Model

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Figure 2
Workforce Planning Model in context



A Capability and Maturity Model

Let us now propose a model of how the capabilities required for WFP are applied within an organization and the approaches taken to achieve desired business results. First let us suggest that the drive towards a ‘mature’ condition of the WFP practice is driven by the need for improved business results in the face of perceived failings in the current match of the workforce and business needs. Typically organizations turn to WFP to deal with:

- Labour shortages
- Hiring delays leading to vacancies
- New facilities
- High turnover
- Poor employee (skills) fit
- Productivity issues

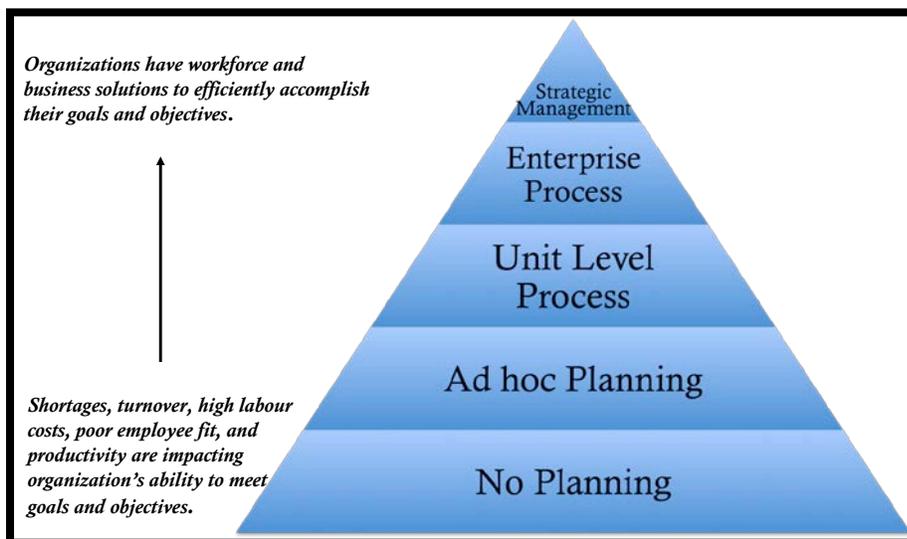


Figure 3

All are factors that are seen as inhibiting the organization from achieving its goals. Attempts are then made to develop a WFP practice to the point where the organization has processes in place that match the human resources present to business needs such that business goals and objectives are efficiently achieved.

The model shown in Figure 3 introduces five stages or levels that may occur along the journey from initial attempt to fully mature application. The five levels (six if one thinks of no effort at all as level zero) shown may be characterized by the approach to the activities needed to produce a Workforce plan.

- Level One: No Planning;** Characterized by reacting to workforce shortages or problems as they occur. Results in short term action lists and crisis management.
- Level Two: Ad hoc Planning;** Characterized as one time or intermittent effort to develop a workforce plan to address immediate requirements, with substantial effort to obtain data, information and develop models. Typically results in short term tactical strategies. Focus tends to be limited to a few departments or superficially for the total company.
- Level Three: Unit level Processes;** Characterized as having workforce models for key units. Consistent and repeatable approach to planning, regular monitoring of model/strategy/actions and KPIs, systematic collection of data.

The model will allow practitioners to view the current state of their practice and to focus on areas that may be lagging in capability or to divert effort to areas that promise increased benefit.

- Level Four: Enterprise Processes;** Characterized as having in place predictive short term and multi-year workforce models at unit and organizational level. Broader, deep, holistic, multi-year strategies that impact the organization to meet Business Strategy goals are in place. Consistent approaches to planning, benchmarking across unit and external boundaries, use of KPI's and benchmark evaluation.
- Level Five: Strategic Management;** Characterized as having in place predictive short term and multi-year workforce models for different scenarios at the unit and organizational level. Models include dollar value impact and industry trends. Modes of internal and external integration/co-operation have been established. Models are used in development of organizational Business Strategy and tactics which flows to the implementation of overall organizational strategy, focuses internal/external people strategy and is regularly monitored for success. Owned and sponsored by the CEO & President.

In Level Five:

“Models are used in development of organizational Business Strategy and tactics which flows to the implementation of overall organizational strategy, focuses internal/external people strategy, and is regularly monitored for success.”

It is also possible to look at the model from the point of view of what drives the transition from one state to another. In Figure 4 one can see the main change that is needed move from level to level.

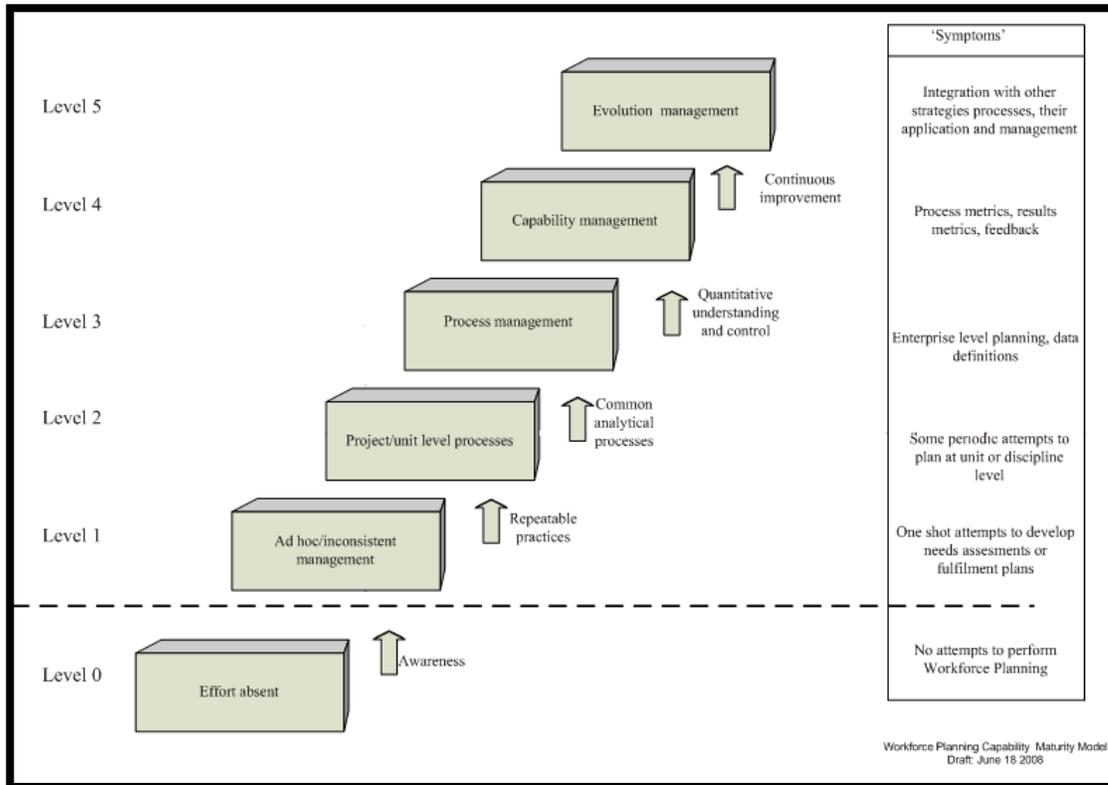


Figure 4
Capability and Maturity Model in Transition view

Using the idea that a stage of no effort at all is Level Zero then the beginnings of awareness is what starts the transition to Level One. The recognition that processes may be re-used and the drive to repeatability leads to Level Two. The broader application of the processes across the enterprise and the drive for commonality leads the transition to Level Three.

The introduction of metrics to assist in the control and development of the processes leads to Level Four, and the integration into the mainstream practices of the organization with the adoption of continuous improvement, leads to Level Five. The ability to view the model from more than one coign of vantage will assist in placing an organization in the context of the model. The symptoms column is yet another way of testing for position. The model will allow practitioners to view the current state of their practice

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and to focus on areas that may be lagging in capability or to divert effort to areas that promise increased benefit.

The Capability and Maturity Model will also assist the WFP community to communicate with their business peers and leaders the potential benefits available from extending either the capabilities in themselves or of ‘maturing’ their application through extending the extent of coverage and increasing integration with operational planning.

A key question is how to place an organization in the model. Before we try and elaborate more on how to assess one’s position in this model it is necessary to be more explicit in defining the terms ‘Capability’ and ‘Maturity’. The following definitions seem likely to be useful in this context:

- *Capability* will be defined as the extent to which each of the five key practices and the two supporting functions identified in the WFP model are in place.
- *Maturity* will be defined as the extent to which these practices are consistent, repeatable, integrated with general business practice, subject to continuous improvement and the extent to which they cover the organization.

It is possible to develop assessment questions for each of the key practices and support functions that will test for the current state of the practice within each of the five key practices (Demand forecasting, supply forecasting Gap identification, strategy development and implementation) and the two supporting functions (measurement and feedback and governance).

For example in the case of capability one can test for:

- Presence of the function
- Process support: (are processes ad hoc or documented and supported with tools)
- Extent of coverage (e.g. in external supply forecasting is the coverage local, regional, national etc.)
- Sophistication of models (single assumption sets Vs. scenario approaches)
- Frequency of ‘repetition’ (from ad hoc to annually or quarterly)
- Confidence in outputs (e.g. predictions)

In the case of maturity it is possible to test for:

- Integration with unit plans (are forecast based on single samples or derived from operational plans?)

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It is unlikely that an organization will have a uniform level of capability or maturity for all ‘threads of activity’ (the five key practices and the two support functions).

- Is WFP applied broadly or only to some units? (Is coverage based on an analysis of impact or just ‘squeaky wheels?’)
- Are the forecasts/predictions used in business planning? (At department/unit/ company level?)
- Are demand forecast driven by multi-year corporate planning scenarios?

It is unlikely that an organization will have a uniform level of capability or maturity for all ‘threads of activity’ (the five key practices and the two support functions). It will therefore be necessary to develop tests that can be applied at the tread level and then aggregated to form an overall placement. It may actually be more useful to assess the thread states as that will point to where addition emphasis may be warranted. See Figure 5. for an organizational assessment tool for the Workforce Planning Capability and Maturity Model. Further work on development and testing of a generic set of questions is underway.

To be Level Five everywhere is not necessarily an appropriate goal, it may well be only certain segments of the business will substantially from such effort, or that resources are severely constrained and need to be applied only to the highest leverage areas. Such a decision can, however, only be made in a mature understanding of the context.

Capability and Maturity Model

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Figure 5. Workforce Planning: Capability and Maturity Model[®]

Assessment Sheet

		CAPABILITY							
		Demand assessment	Supply assessment	Gap determination and prediction	Strategy development	Implementation planning and execution	Governance	Metrics and feedback	
Level 0 Coherent Effort Absent	Instance by instance	none	Basic characterization of existing workforce (age, service, rank) Local market feels for availability of common skills requested	none	Base recruiting	none	none	none	
Level 1 No Planning	Demand is determined by current shortage of personnel	Basic characterization of existing workforce (age, service, rank) Local market feels for availability of common skills requested	Basic gathering of internal WF variables (quits, terminations, retirements) Short-term (annual) projections General trends of labour availability and costs tracked	Recognition of immediate needs.	Short term 'recruiting' drives Overtime or temporary re-deployment plans. One time compensation/benefit incentives.	Executed by 'routine' operational resources and budgets.	Not defined as separate activity/function.	Base level vacancy reporting. Simple activity monitoring.	
Level 2 Ad Hoc Planning	One time model of demand constructed for single initiative, unit or department. Project or specific unit level needs projected for key skill	Basic gathering of internal WF variables (quits, terminations, retirements) Short-term (annual) projections General trends of labour availability and costs tracked	Internal training and succession programmes modeled and output projected (3 years) for some departments Local and regional projections for availability of key skills based on enrolments and graduations Local supply of new graduates for key areas tracked and projected	Initiative level (event driven) determination of shortfall/surpluses. Key skill need prediction. Some linear extrapolation of turnover.	Initiative (or locale) based plans for recruiting/retention. Quick acting approaches (e.g. hire ready talent)	May be funded as part of an initiative or project. Short term, shared, resource assignments. Project manager identified Execution plan in place for identified activities.	Unit champions in some business areas (locales or organizational units) who develop ad hoc processes and responsibilities. Possibly single HR champion.		
Level 3 Unit/Process level Planning	Demand planning based on approved forecasts. Requirements known by key positions, locations and timing for key unit(s).	Internal training and succession programmes modeled and output projected (3 years) for some departments Local and regional projections for availability of key skills based on enrolments and graduations Local supply of new graduates for key areas tracked and projected	Enterprise level modeling of requirements by skill set competencies. Determination of local and broad based imbalances. Multi-year projections with impacts of business plans. Sensitive to external constraints.	Unit level determination of existing and projected imbalances using model with internal supply/demand forecasts integrated. Breakdown to skill/position level.	Joint HR/Business unit strategy development. Address turnover/retirements with coherent programmes. Unit level approach to lay-offs Position specific training and development approaches. Unit level development streams.	Budgeted at HR/Business unit level for some units. Dedicated HR and/or Business unit accountability Programme accountability at manager level. Change management plan identified and staffed. Specific tools available and supported.	Unit manager and/or HR professional responsible for support of individual business unit(s). Processes are consistent across affected units.	Process metrics in place. Process benchmarks done with external peers.	
Level 4 Enterprise level Process	Demand planning based on approved forecasts. Requirements known by key positions, locations and timing for whole organization. Consistent models that translate to requirements at the organizational and unit level.	Internal 'feeder streams' are identified for critical segments Monitoring and recruiting in place nationally (internationally) for critical elements Workforce model in place with supply modelling and projections	Enterprise level modeling of requirements by skill set competencies. Determination of local and broad based imbalances. Multi-year projections with impacts of business plans. Sensitive to external constraints.	Unit level determination of existing and projected imbalances using model with internal supply/demand forecasts integrated. Breakdown to skill/position level.	Organization-wide approaches to development cross placement, and attrition in face of technology, process, or environmental changes. External partnerships for base talent development. Focused retention approaches.	Budgeted at organizational level. Dedicated resources available for organization-wide deployment. Comprehensive process/tool sets deployed and supported. Collective bargaining units included in plans.	Workforce planning is a mainstream priority. Accountability exists at the Senior level. Consistent processes are applied across the organisation. Dedicated resources exist. Jointly owned by Business /HR.	Impact on organizational KPIs identified and tracked.	
Level 5 Strategic Management	Scenario Forecasting with dynamic models. Integrated with Business Plan. Outside influences included. Requirements available for each scenario.	Partnerships are active with Training institutions to influence provide predictable flows of skills over long term in anticipation of business strategy	Imbalance identification for planning scenarios. Cost/benefit impacts included in projections. (includes avoided and opportunity costs).	Unit level determination of existing and projected imbalances using model with internal supply/demand forecasts integrated. Breakdown to skill/position level.	Part of formal business strategy. Active interventions to affect government and educational policy. Cross industry initiatives.	Budgeted and resourced as part of organizational strategy and capability. CIP processes in place. Effectiveness monitored at executive level.	WFP seen as necessary to achieve organizational objectives. Owned by CEO, senior accountability. Roles and processes well defined across whole organization.	Formal review of effectiveness of WFP to overall corporate success.	

MATURITY

Summary

The models presented in this paper allow for managers and practitioners to develop an understanding of the current state of the Workforce planning discipline within their organization, to communicate the current state of practice to peers, colleagues and management and to propose actions to develop plans to bring the state of practice to the desired point where benefits are maximized in their business context.

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Dynawise differentiates itself through a rigorous, structured approach to workforce analysis, forecasting and strategy development.

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