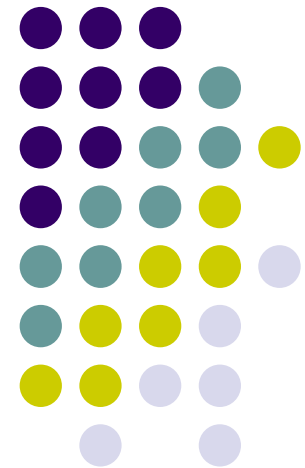
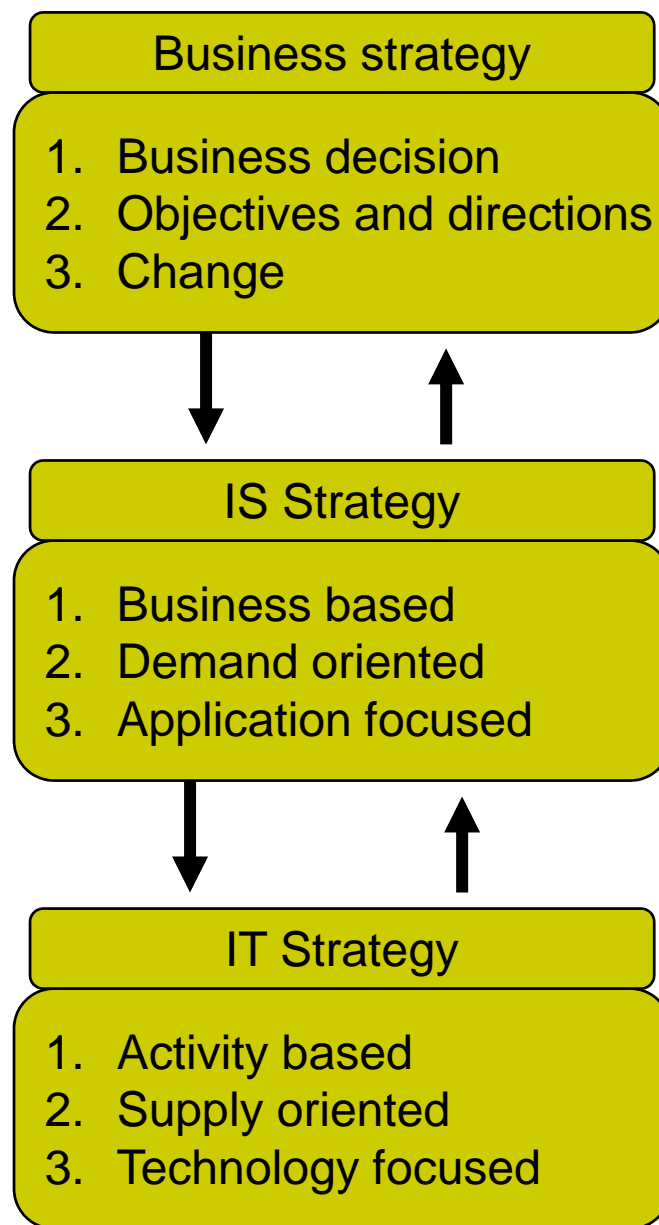
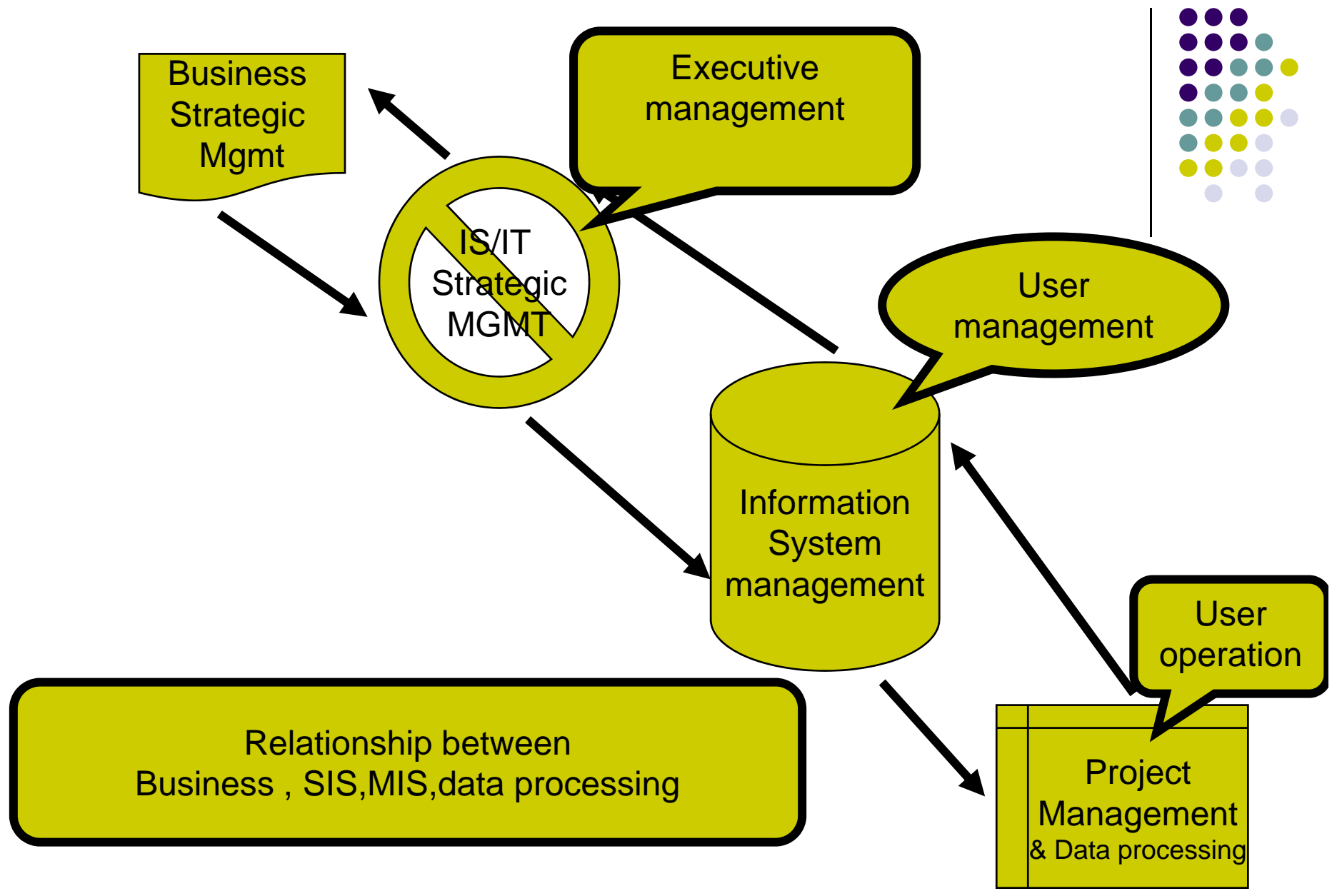


Business Information Systems Strategy

7





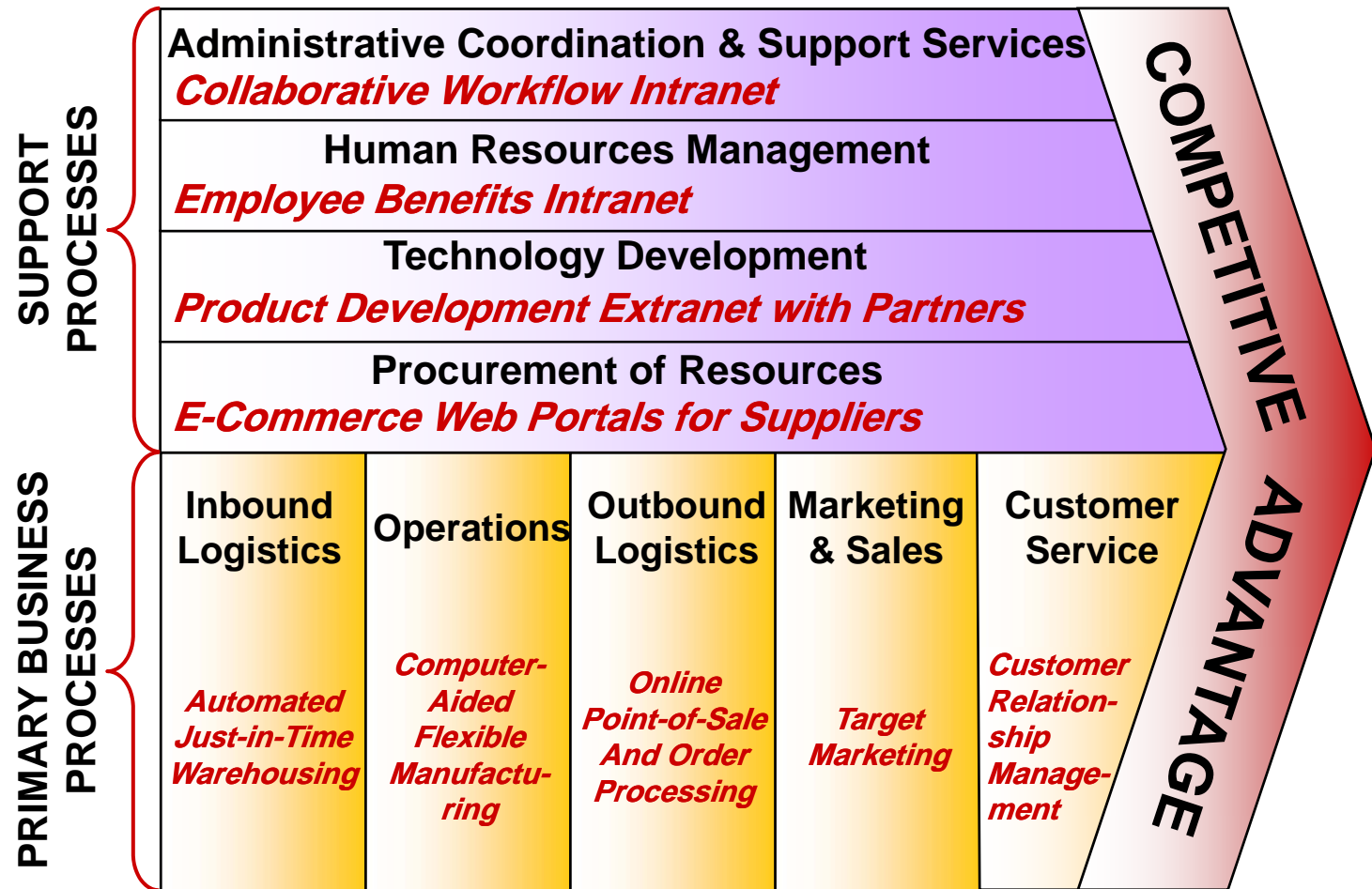


Strategic Systems: Classification



- Linking to Customers and Suppliers
- Improved Integration of Internal Processes
- Information-based Products and Services
- Executive Information Systems

Porter's Value Chain & Extended supply chain

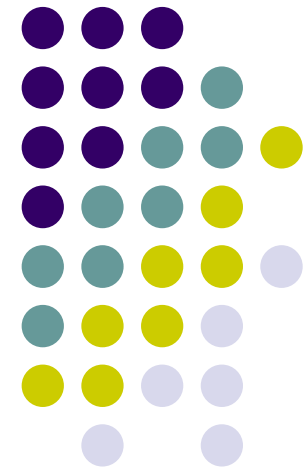




Determining IS strategy

- The main objective of determining IS strategy is to identify required application
 - Existing application
 - Required application
 - Potential application

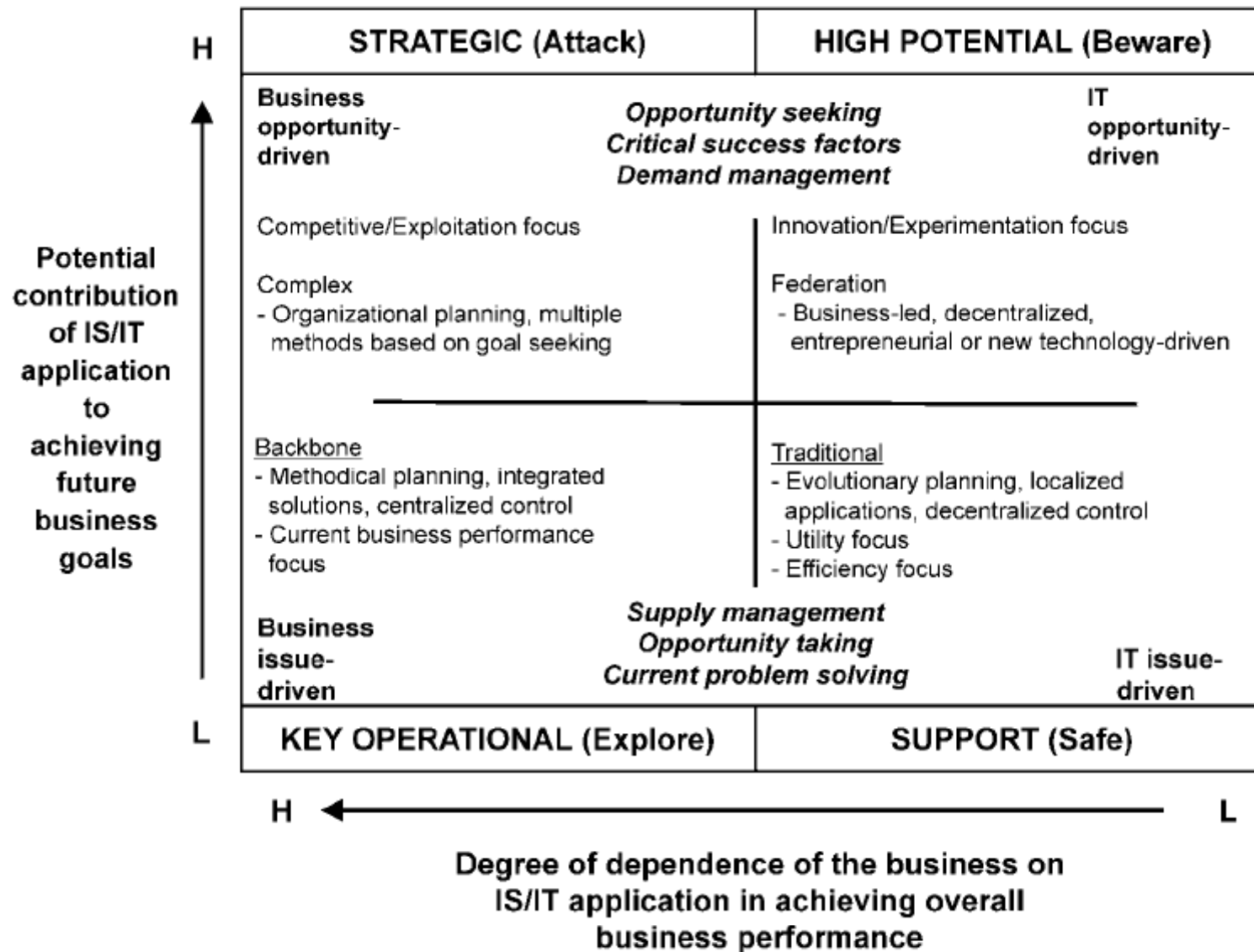
How IS could impact strategy



The Information Systems Management Environment



| Purpose Focus | Operational Efficiency | Management Effectiveness | Business advantage through change |
|--------------------------------|--|--|--|
| Internal | Data processing – automation of business tasks and processes | Management Information Systems (and ‘Executive Information Systems’) | Internal business integration by process, job, and organization redesign |
| External | Electronic links between organizations automating data exchanges | Sharing information by direct access from one company to another’s information resources | External business integration, changing the roles of the firms in the industry |



Applications Portfolio

(application effect)

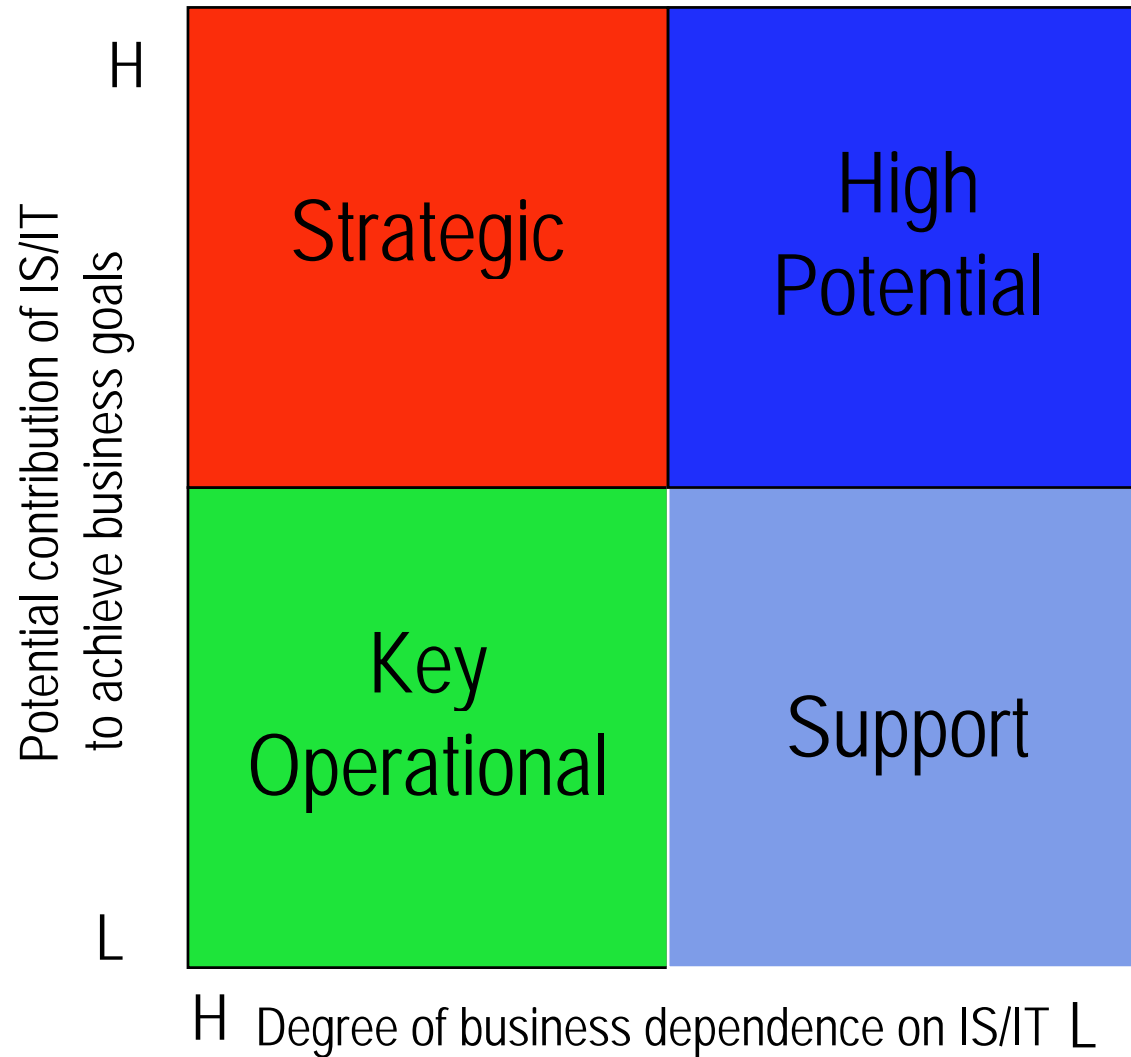


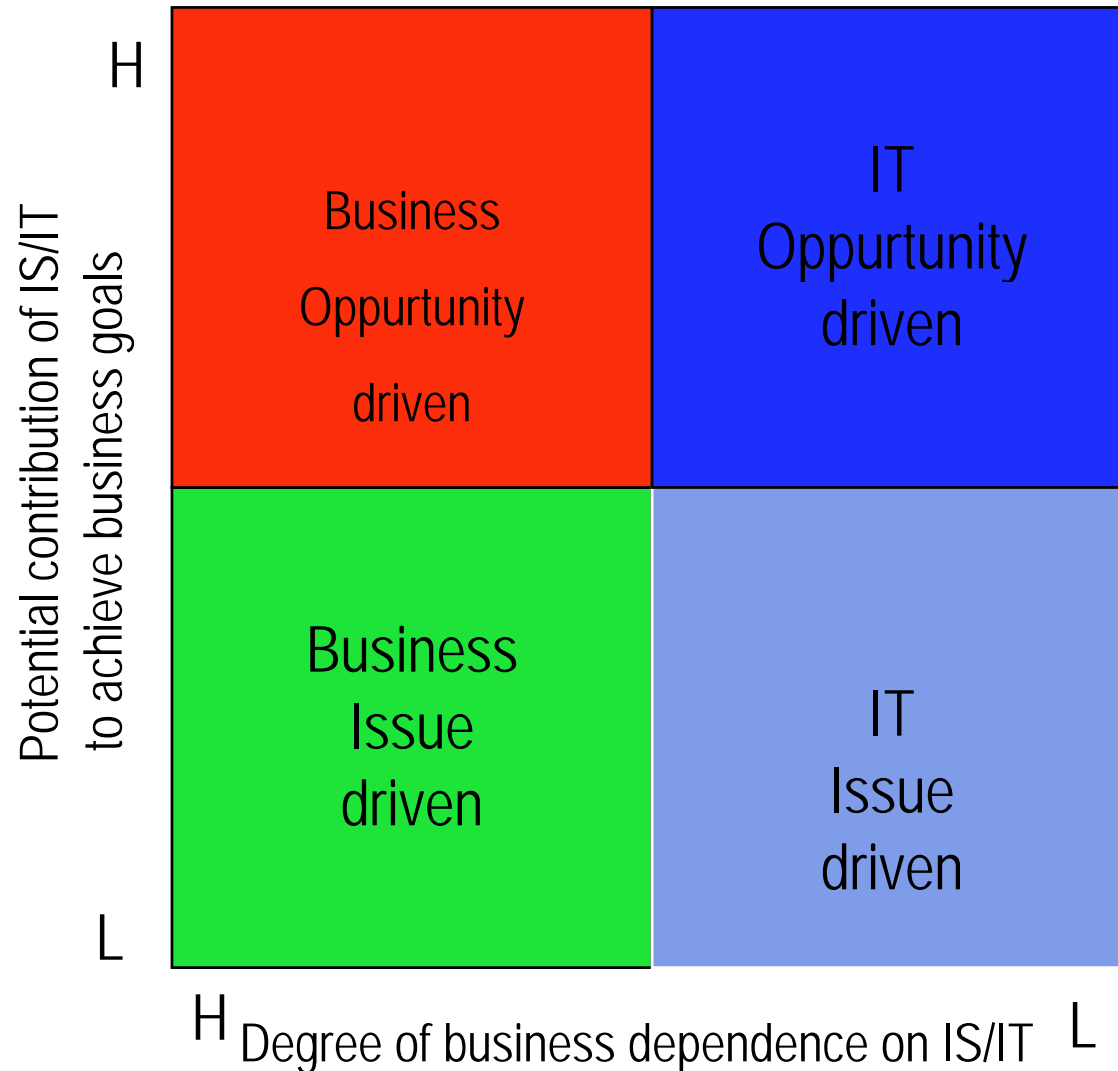
Table 7.2 Some key issues in the segments of the portfolio

| | <i>Driving forces</i> | <i>Critical requirements</i> |
|------------------------|--|---|
| <i>High potential</i> | <p>New business ideas or technological opportunity</p> <p>Individual initiative—owned by a ‘product champion’</p> <p>Need to demonstrate the value or otherwise of the idea</p> | <p>Rapid evaluation of prototypes and avoid wasting effort/resources on failures</p> <p>Understand the potential benefits (and the economics) in relation to business strategy</p> <p>Identify the best way to proceed—the next step</p> |
| <i>Strategic</i> | <p>Market requirements, competitive pressures or other external forces</p> <p>Business objectives, success factors and vision of how to achieve them</p> <p>Obtaining an advantage and then sustaining it</p> | <p>Rapid development to meet the business objective and realize benefits within the window of opportunity</p> <p>Flexible system that can be adapted in the future as the business evolves</p> <p>Link to an associated business initiative to sustain commitment</p> |
| <i>Key operational</i> | <p>Improving the performance of existing activities (speed, accuracy, economics)</p> <p>Integration of data and systems to avoid duplication, inconsistency, and misinformation</p> <p>Avoiding a business</p> | <p>High-quality, long-life solutions and effective data management</p> <p>Balancing costs with benefits and business risks—identify the best solution</p> <p>Evaluation of options available by objective</p> |

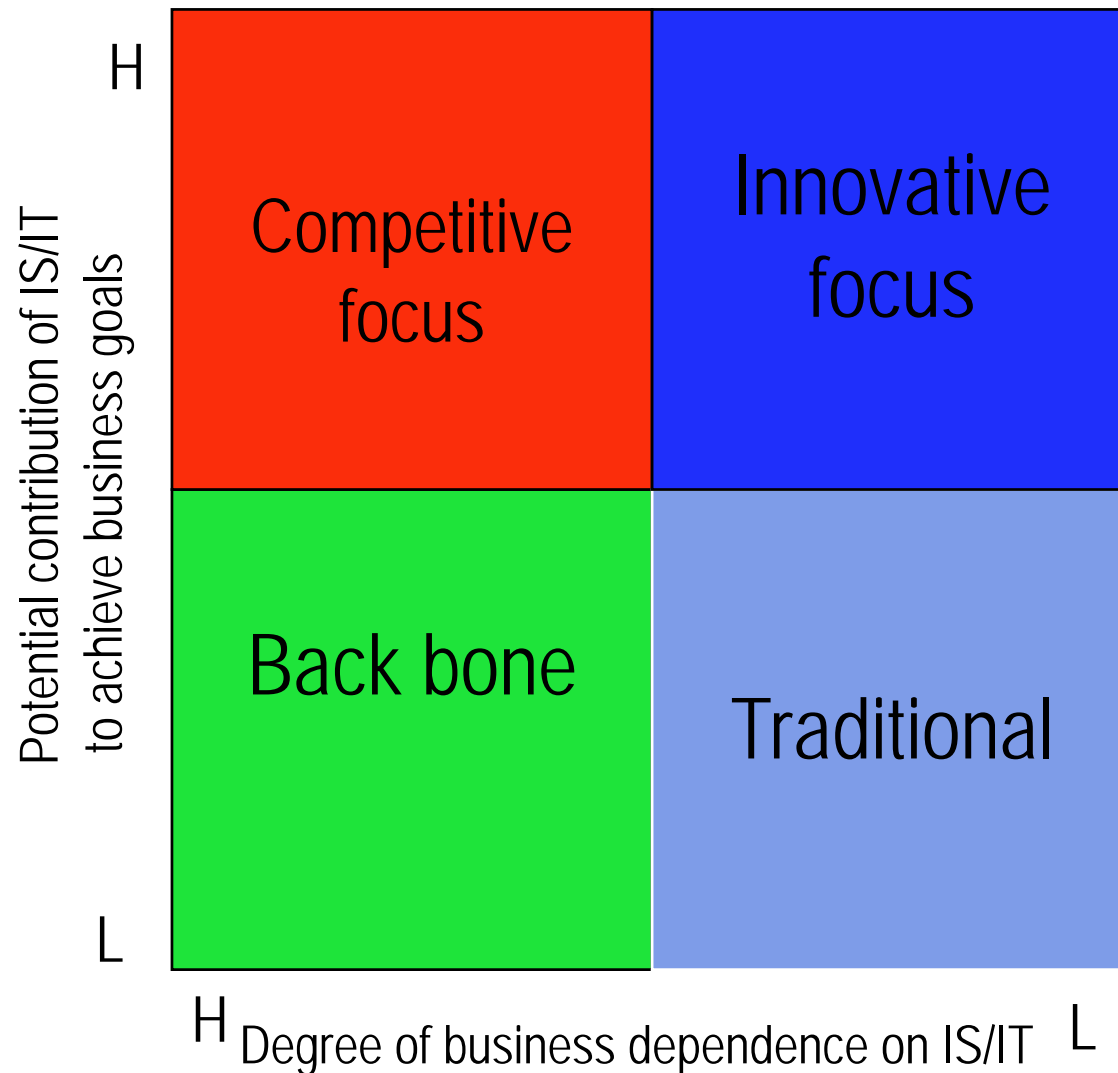


Applications Portfolio

(Drivers for applications)



Applications Portfolio (Role)



Applications Portfolio

(definition of applications scope)



- applications which are critical to sustaining the future business strategy
STRATEGIC

- applications which may be important in achieving future success

HIGH POTENTIAL

- applications on which the organisation currently depends for success

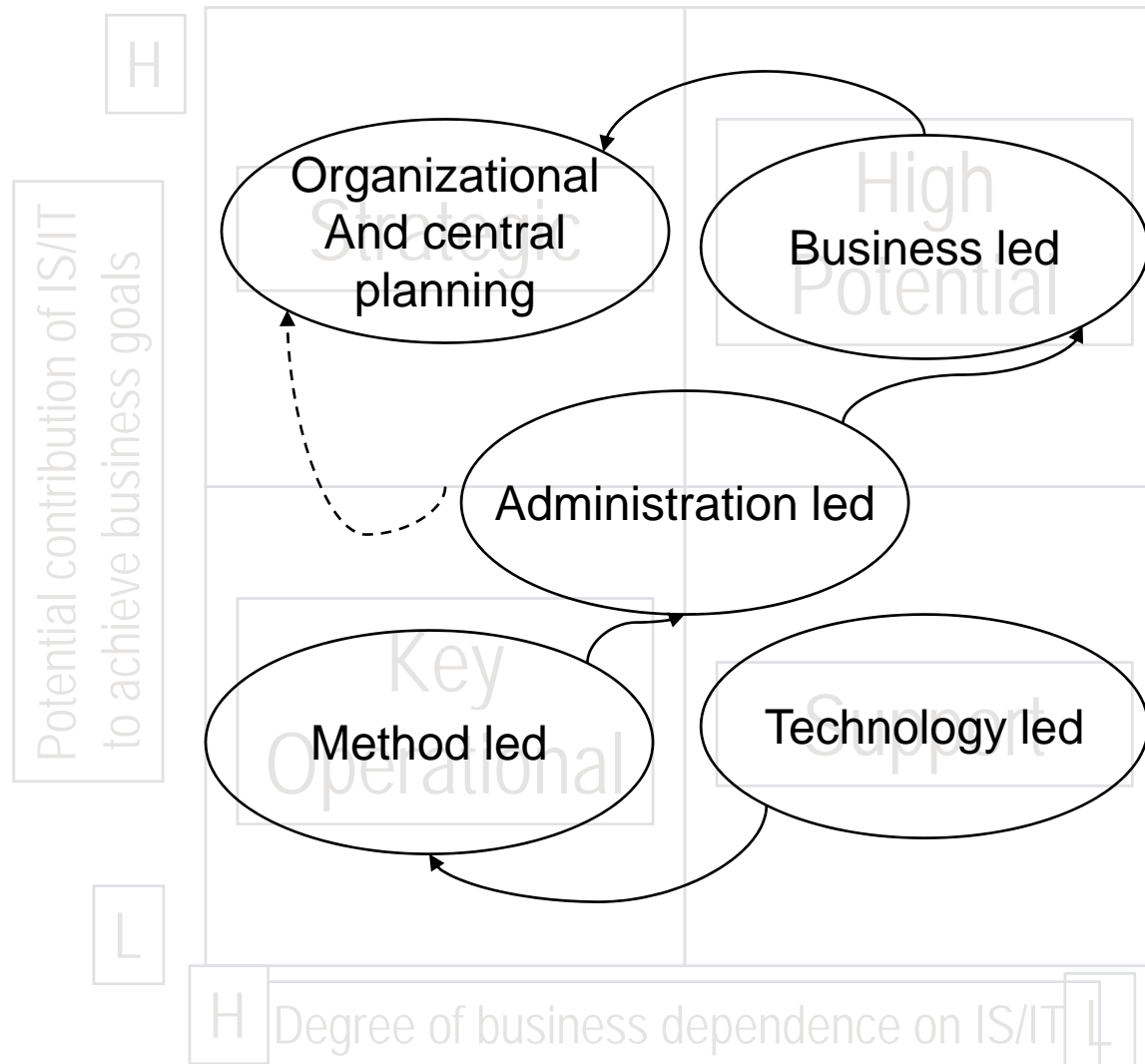
KEY OPERATIONAL

- applications which are valuable but not critical for success

SUPPORT

Applications Portfolio

(generic strategies)



Generic IS strategy

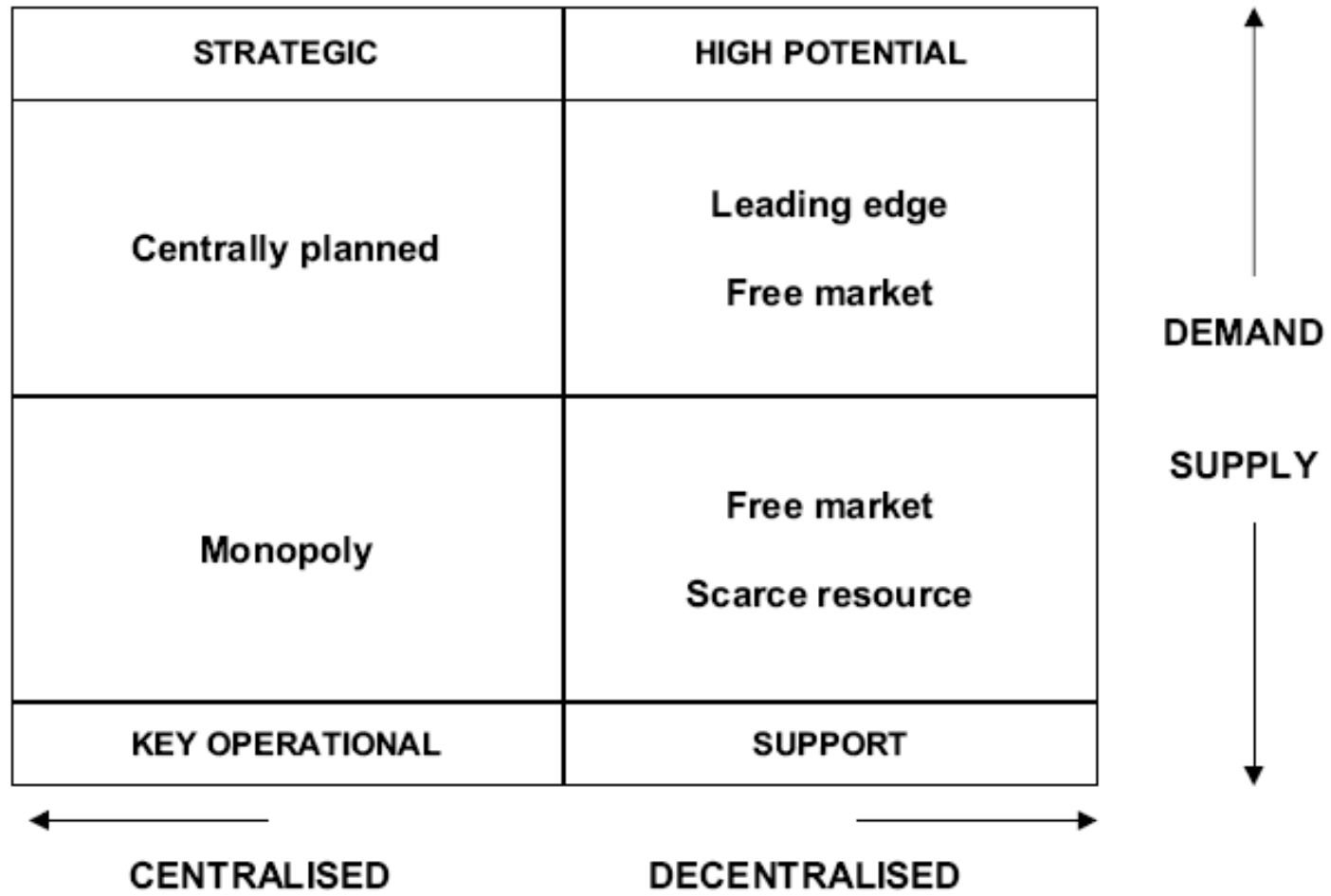
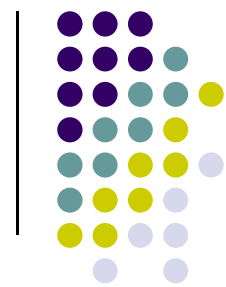


Figure 7.5 Relationship of applications portfolio and generic IS strategies

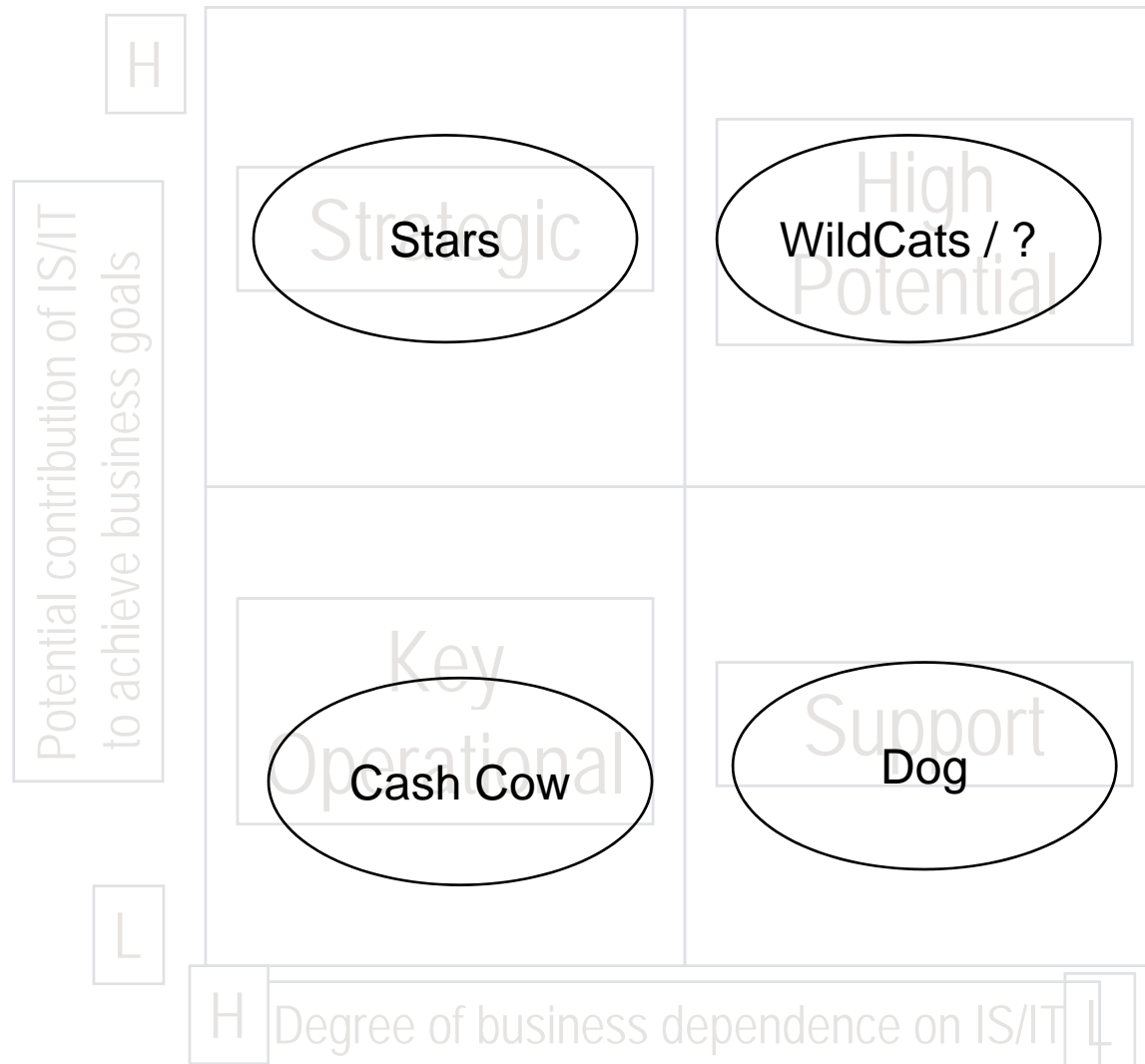


Table 7.3 Rationale and requirements for generic strategies (source: after Parsons)

| | <i>Centrally planned</i> | <i>Leading edge</i> | <i>Free market</i> | <i>Monopoly</i> | <i>Scarce resource</i> |
|-------------------------------------|---|---|---|--|---|
| <i>Management rationale</i> | Central coordination of all requirements will produce better decision making | Technology can create business advantages and risks are worth taking | Market makes the best decisions and users are responsible for business results Integration is not critical | Information is a corporate good and an integrated resource for users to employ | Information is a limited resource and its development must be clearly justified |
| <i>Organizational requirements</i> | Knowledgeable and involved senior management Integrated planning of IS/IT within the business planning process | Commitment of funds and resources Innovative IS/IT management Strong technical skills | Knowledgeable users Accountability for IS/IT at business or functional level Willingness to duplicate effort Loose IT budget control | User acceptance of the philosophy Policies to force through single sourcing Good forecasting of resource usage | Tight budgetary control of all IS/IT expenses Policies for controlling IS/IT and users |
| <i>IT role</i> | Provide services to match the business demands by working closely with business managers | Push forward boundaries of technology use on all fronts | Competitive and probably profit centre—intended to achieve a return on its resources | To satisfy users' requirements as they arise, but non-directive in terms of the uses of IS/IT | Make best use of a limited resource by tight cost control of expenses and projects. Justify capital investment projects |
| <i>Line managers and users role</i> | Identify the potential of IS/IT to meet business needs at all levels of the organization | Use the technology and identify the advantages it offers | Identify, source and control IS/IT developments | Understand needs and present them to central utility to obtain resources | Identify and cost-justify projects Passive unless benefits are identified |

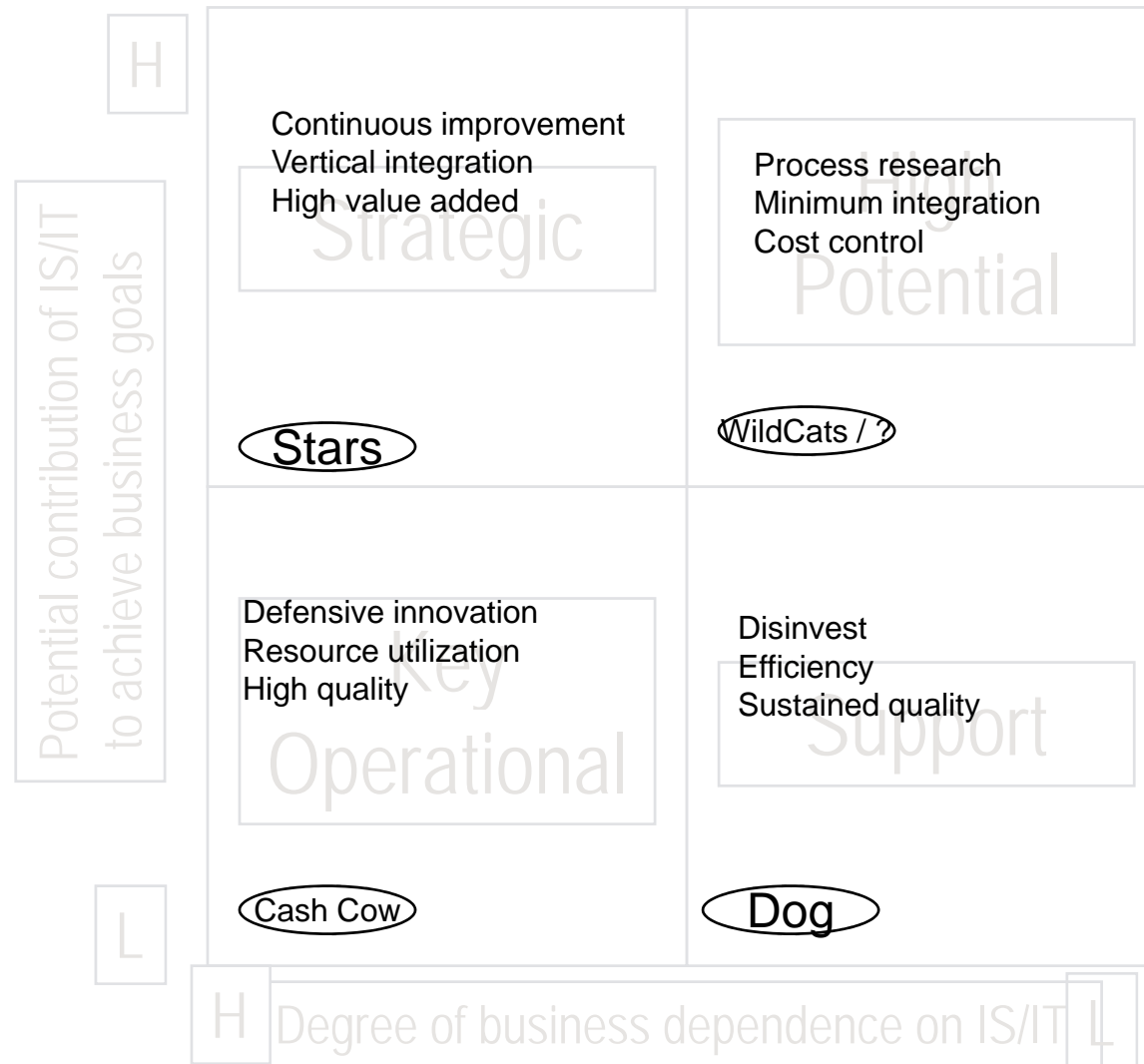
Applications Portfolio

(Business portfolio)



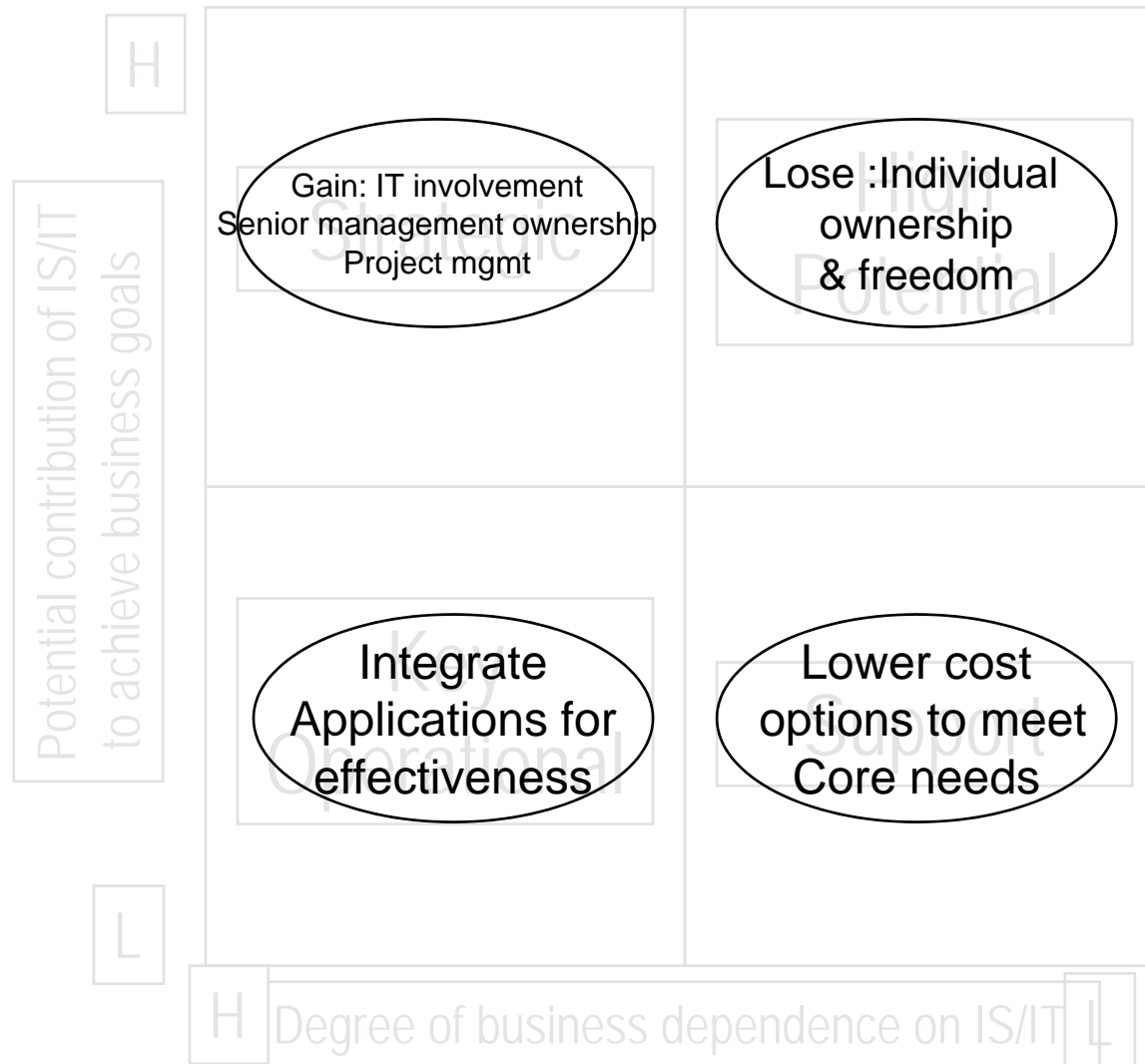
Applications Portfolio

(System portfolio)



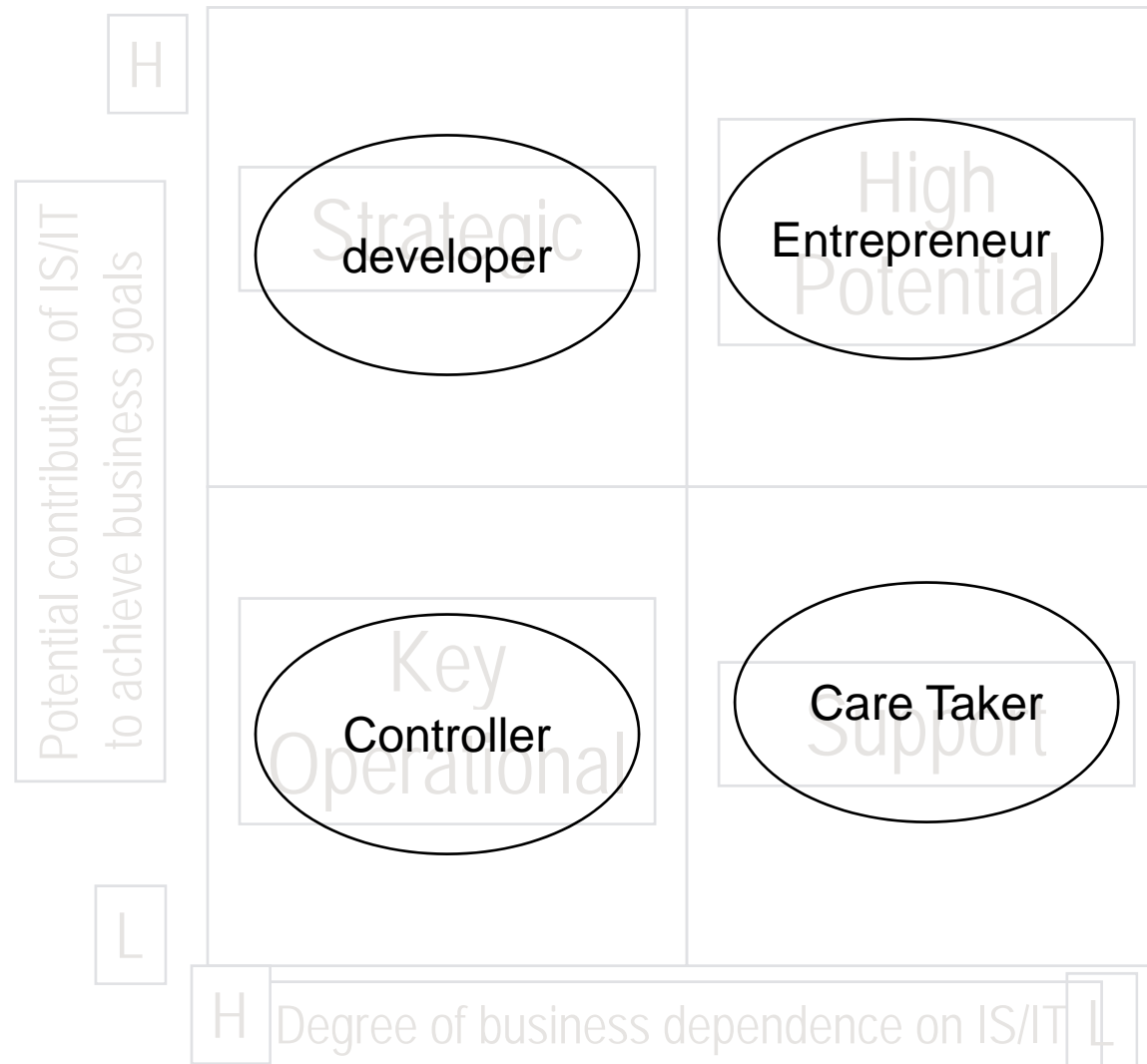
Applications Portfolio

(Key issues)



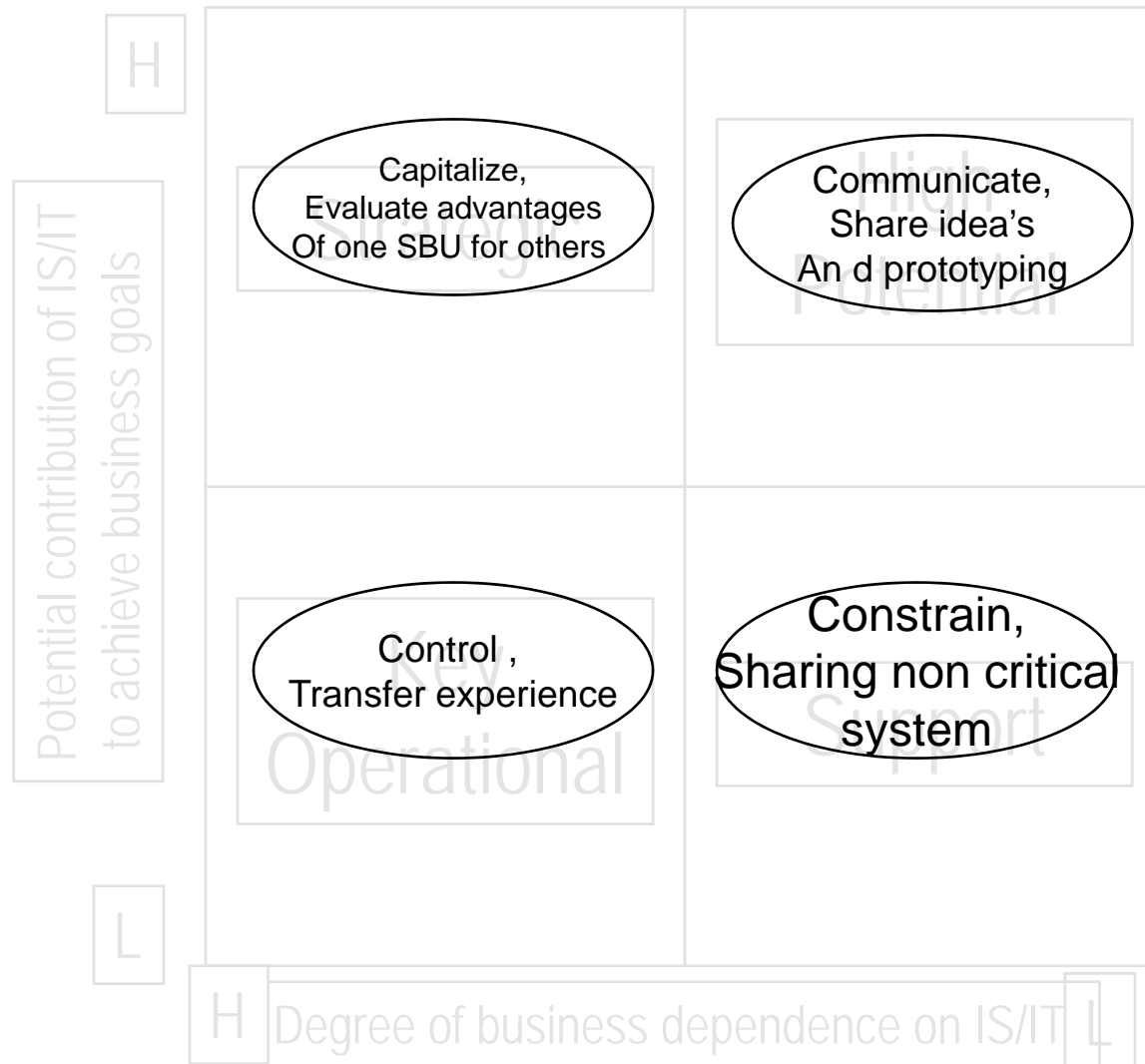
Applications Portfolio

(Management styles)

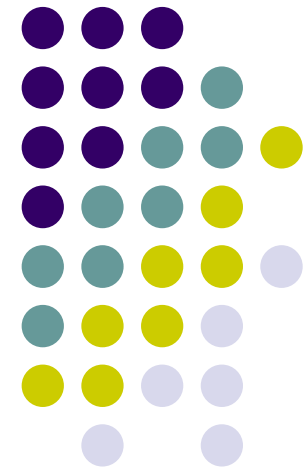


Applications Portfolio

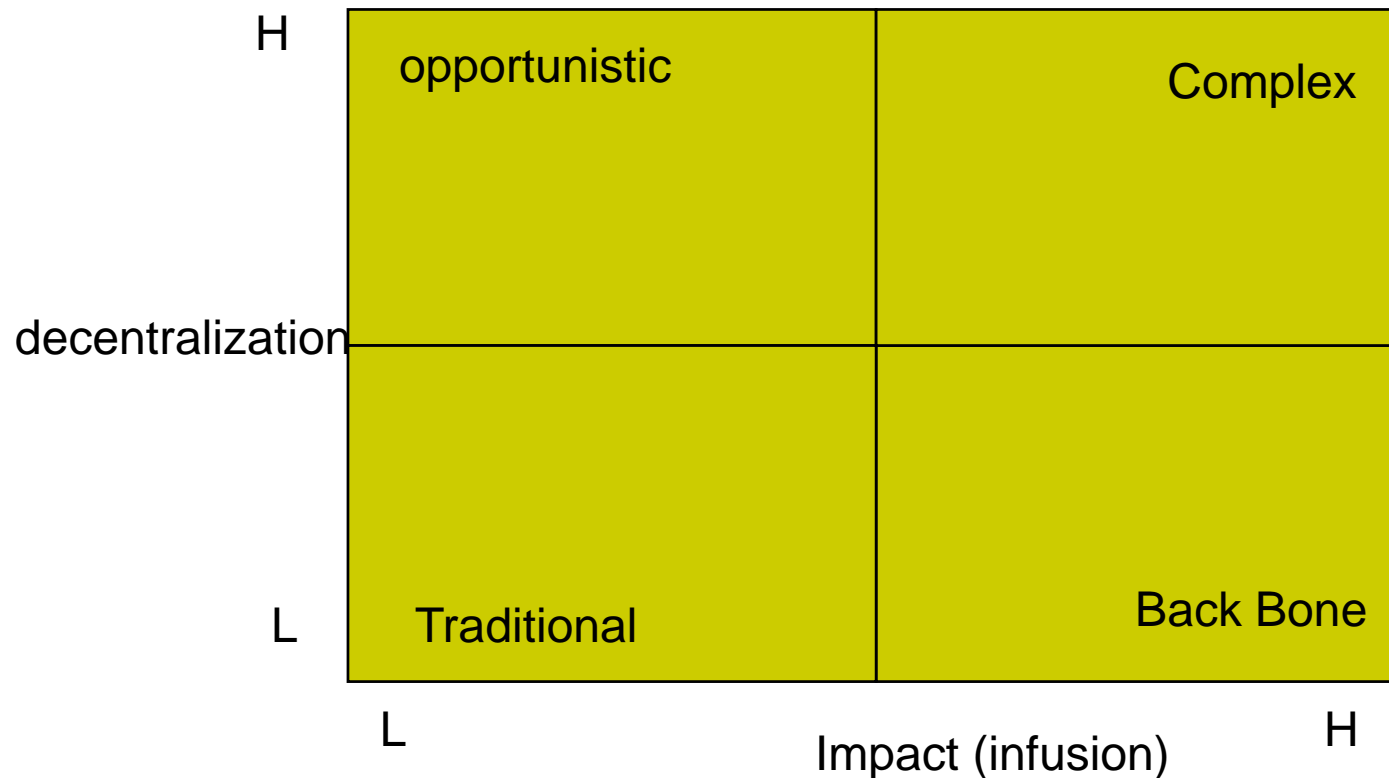
(Multi business planning , portfolio management)



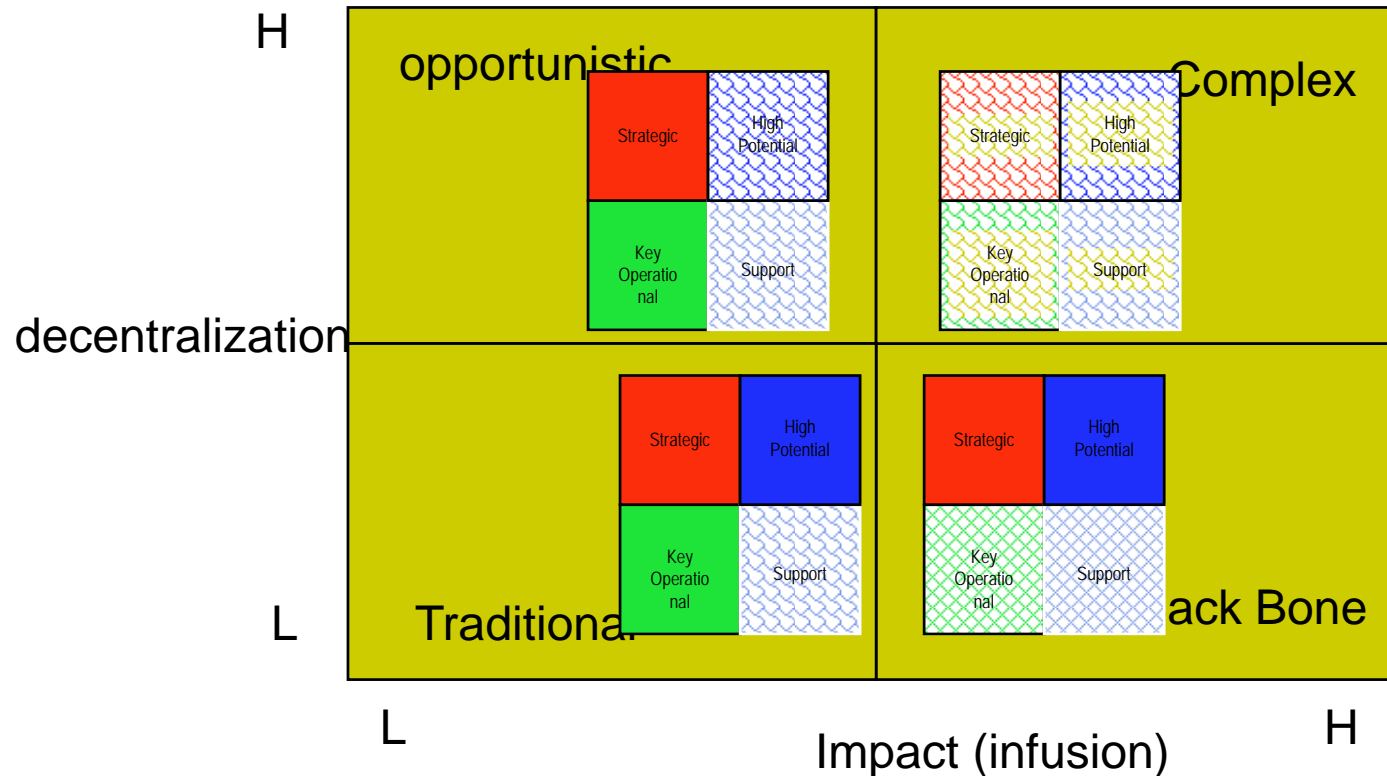
Application portfolio in different IS/IT environment



Organizational expectation from IT



Organizational expectation from applications portfolio



Box 7.1 Classifying the applications in the portfolio

Questions

If the development* succeeds, will it:

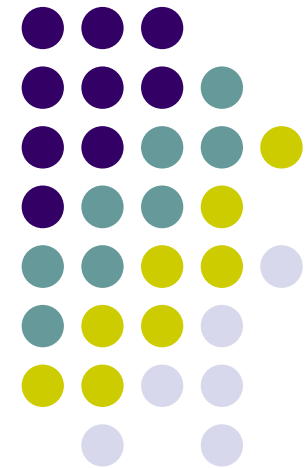
- | | |
|---|--------|
| (a) Result in a clear competitive advantage for the business? | Yes/No |
| (b) Enable the achievement of specific business objectives and/or critical success factors? | Yes/No |
| (c) Overcome known business disadvantages in relation to competitors? | Yes/No |
| (d) Avoid foreseeable business risks becoming major problems in the near future? | Yes/No |
| (e) Improve the productivity of the business and, hence, reduce long-term costs? | Yes/No |
| (f) Enable the organization to meet statutory requirements? | Yes/No |
| (g) Provide benefits not yet known, but may result in (a) or (b) above? | Yes/No |

* For existing applications the question is, is the application delivering benefits that ...'

A new perspective for applications portfolio

Comparing now & future trends

Industry focus framework





The Strategic Grid Organisations

LOW ← *Strategic impact of **future** systems* → HIGH

LOW



*Strategic impact of **existing** systems*



HIGH

McFarlan, Earl

| | |
|--|--|
| <p>Support IT of little impact. Low spend. Invisible to senior management. Might have low-level office systems specialists.</p> <p>Eg Cement Factory</p> | <p>Turnaround Education programmes in place for senior management. Move from back office computing to centre stage.</p> <p>Eg Some retailers</p> |
| <p>Factory Applications which are critical to sustaining existing business. Have on-line real-time systems for daily operations. Significant IT budget.</p> <p>Eg. Steelworks, oil refinery.</p> | <p>Strategic Applications which are crucial for future success. The business is shaped by the IT systems it uses.</p> <p>Eg. Banking, credit card companies, insurance.</p> |



Managing Grid Systems

- *Support Applications.* Improve management performance, but are not business-critical:-
 - *Office automation*
 - *Bought-in products*
- Can be managed ad hoc.
- Low technical input.



Managing Grid Systems

- *Factory Applications*. Critical to sustaining the existing business:-
 - Must operate efficiently, reliably
 - Must be well supported/backed up
 - Use industry standard operating systems
- Provide the mechanisms by which current business is done. Hence 'factory' analogy.

Managing Grid Systems



- *Turnaround Applications.* Those which may prove to be of future strategic importance
- Need planning, spending, creative thinking about new ways of using.
- Systems may be in embryonic form at present.

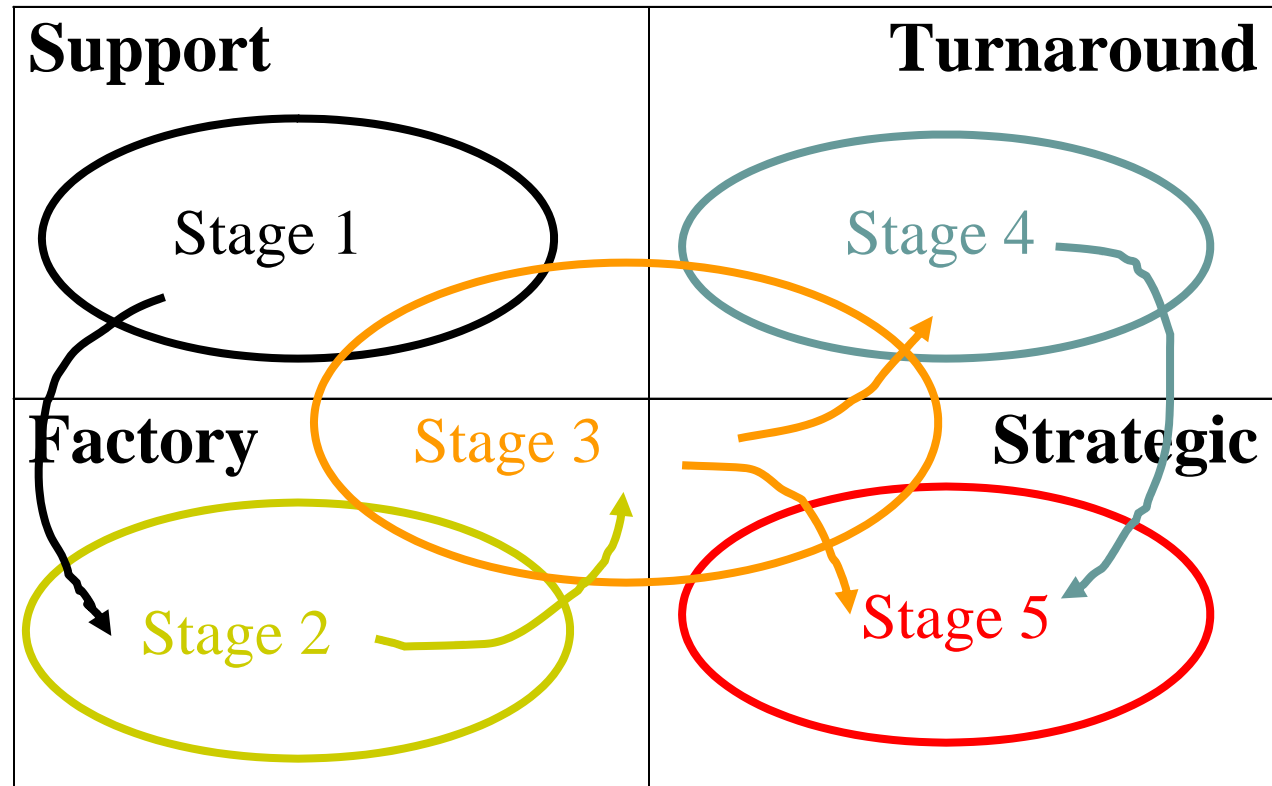


Managing Grid Systems

- *Strategic Applications.* Those critical to the future success of the business.
- Should be owned by business units and managers.
- Must be tightly controlled, well funded.
- Must fully integrate into business/strategic plan.



Development Over Time



Ward Griffiths & Whitmore, Strategic Planning for Information Systems. Wiley, 1990

Hierarchical Application Portfolio , business view



Applications built to support different levels of management activity

Operational Systems

- Order entry
- Payroll
- Word Processing
- Stock Control

Control Systems

- Quality Analysis
- Requirements planning
- Sales analysis
- Budget Control

Planning Systems

- Sales forecasting
- Financial Modeling
- Profit/earnings forecasts
- Manpower Planning

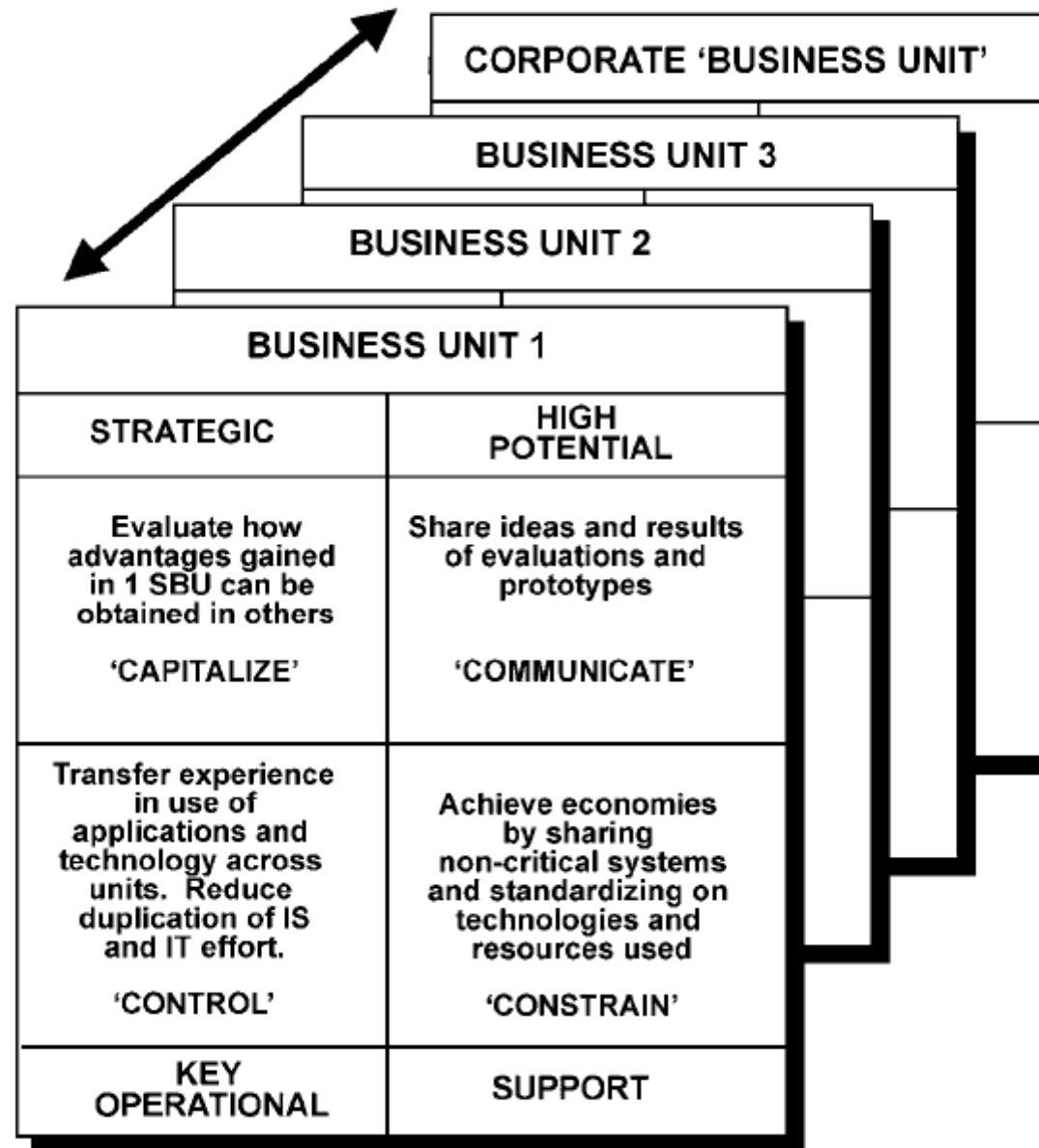


Figure 7.10 Portfolio management in a multi-business-unit organization



Conclusion

“How you gather, manage, and use information will determine whether you win or lose”

- Bill Gates