1) Why does MBIL want to diversify?

**Cyclical nature of optical media industry:** Diversification is essentially a risk mitigation strategy because the optical media manufacturing business is cyclical in nature, and there is uncertainty associated with third generation optical media.

Targeting an external opportunity in the power market with an internal strength:
- Estimated industry turnover increase in the PV cell business from € 5.6 billion in 2004 to €24 billion in 2010.
- PV manufacturing is similar to MBIL’s core strength in manufacturing of optical disks (both involve thin coating substrates)
- Enticing growth prospects in the PV industry with relatively low capital intensiveness: The estimated capacity in 2010 of 6GW is the equivalent of approx. 35-40 billion USD. The company had set a target of establishing a capacity of 80MW by the year 2007 with an initial project cost of 58 million USD. This results to an attractive target revenue of 467million USD to 533 million USD (see Appendix 1 calculations), which is significantly more than the initial project cost demonstrating the rather low capital intensiveness.

Targeting an external opportunity in the entertainment space and home video market with an internal strength:
- The home video market presents an attractive opportunity as it accounts for total revenues of 79 billion INR.
- The home video market enables MBIL to take advantage of its world-class production capabilities and its wide distribution network across India to offer high-quality movie titles at low costs.

2) Should MBIL pursue a strategic partnership with OM&T?

**Reasons to pursue**
- MBIL among other OEMs is focused on low-cost manufacturing and lacks the technological capabilities to develop new formats. OM&T has complementary resources as they are more focused on the development of new formats.
- OM&T has strong expertise in the Blu-ray technology, which exhibits attractive growth prospects with demand predicted to reach 1.7 billion discs over the next three to four years
- Benefits to be gained from OM&T’s strong network of media brand houses.
- According to the industry structure view OM&T has a high bargaining power as a supplier of Blu-Ray proprietary technology. Through a partnership, MBIL could neutralize some of the effects of the high bargaining power. This means reducing OM&T’s incentive to take advantage of its position including higher pricing.
- OM&T’s expertise in the areas of photolithography, this film coating, and the design and implementation of advanced light trapping concepts for thin-film solar cells could be leveraged for the new PV cell business.

**Reasons not to pursue**
- The compatibility of MBIL’s existing production lines with the new HTL recording technology is a challenge and would likely require high capital investments.
- Market uncertainty: The partnership is a relatively large investment for MBIL given the uncertainty of the future disc format between HD-DVD and Blu-ray.

**Conclusion:**
Considering the potential growth from Blu-ray technology, access to OM&T large network of media brand houses and capabilities in PV related technology, a strategic partnership should be formed with necessary actions to mitigate risks related to market uncertainties and potential compatibility issues.
3) What are the specific determinants of relational rents (Dyer & Singh, 1998) the partnership would entail and your evaluation of those in relation to a strategic partnership with OM&T?

1. Relation-specific assets

If the two parties were to engage in a partnership, some transaction-specific capital investments should be considered:

- Customisation of OM&T’s capabilities such as photolithography and thin film coating to adapt to the needs of PV cell production
- If the Blu-Ray technology demonstrates its potential as the future format of optical storage media, HTL specialized Blu-Ray production capability should be established.

**Subprocesses facilitating relational rents**: Equity investment (see reasoning in Question 4) is a recommended safeguard to reduce potential opportunism. Furthermore, sufficient Blu-ray production volume should be established for the customization of HTL specialized production capability.

2. Knowledge-sharing routines

If the partnership is to be established, knowledge-sharing is one of the most important determinants of relational rent because of OM&T’s specialization in intangible expertise and know-how in optical storage media development and manufacturing. To capitalize on the potential, the two companies should establish overlapping knowledge bases and routines that would maximize interaction frequency that could be facilitated through for example the use of a ‘communication matrix’ also used by Fuji and Xerox.

**Subprocess facilitating relational rent**: An equity stake in OM&T would form a formal financial incentive for transparency, knowledge transfer and reduction of opportunism.

3. Complementary resources and capabilities

There are several synergies resulting from complementary resources and capabilities:

- Complementary technologies: OM&T in HTL and MBIL in LTH
- MBIL is more focused on process R&D and low-cost production whereas OM&T has more focus on proprietary technology R&D. Some overlap exists in production process R&D.
- OM&T’s complementary expertise areas that MBIL could leverage for its new PV cell business including photolithography and thin film coating and R&D in photovoltaics.

4. Effective governance

For effective governance, some formal self-enforcing safeguards should be put in place:

- Equity stake (see reasoning in Question 4)
- Symmetric investments should be made in specialized/cospecialised assets such as common specialized production capability in HTL recording if Blu-ray demonstrates its potential as a future format.

Furthermore, both companies would benefit from the informal safeguards through each other’s established reputation.

4) If MBIL decides to pursue a strategic partnership with OM&T, what form should the strategic partnership take and why?

A) Licensing

**B) Alliance with a minority equity stake in OM&T**

C) Acquisition of OM&T

An analysis based on the framework by Dyer et al. (2004) (see Table 1 in Appendix 2) demonstrates that the required synergies between MBIL and OM&T are reciprocal and there is a high level of competition, which would suggest an acquisition to be a suitable choice. However, the analysis in Table 1 also reveals that outright acquisition bears too high risk based on (1) high market uncertainties in relation to future format of optical storage media between Blu-Ray and HD-DVD, and (2) there still remains some uncertainty of how OM&T’s technology can be fully leveraged for the PV cell business. Nevertheless, there are several potential suitors for the resources of OM&T, which is why MBIL should get a minority equity stake in OM&T and see it as a gateway to an acquisition if Blu-Ray becomes the future format of optical storage media and the technological capabilities of OM&T are deemed compatible for the PV cell business.
Appendix 1 – Calculations

Question 1

MBIL’s target of 80MW out of the 6GW market by 2007 translates into a target revenue: 

\[(80 \times 10^6) \, W / (6 \times 10^9) \, W \times 35000 \, \text{million USD. Target revenue: 467 million USD to (if total market revenue 40 billion USD instead of 35 billion) 533 million USD.}\]

Appendix 2

Question 4

*Table 1. Adapted from Dyer et al. (2004)*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Strategy</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Types of synergies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modular Sequential</td>
<td>Nonequity alliances</td>
<td>Reciprocal synergies: Requirement to share knowledge and know-how.</td>
</tr>
<tr>
<td>Reciprocal</td>
<td>Acquisitions</td>
<td></td>
</tr>
<tr>
<td><strong>2. Nature of Resources (relatives value of soft to hard resources)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Nonequity alliances</td>
<td>High value of soft resources: optical R&amp;D technology.</td>
</tr>
<tr>
<td>Low/Medium</td>
<td>Acquisitions</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>Equity alliances</td>
<td></td>
</tr>
<tr>
<td><strong>3. Extent of Redundant Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Nonequity alliances</td>
<td>Low to medium amount of redundant resources due to complementary resources in terms of technologies, but some overlaps in manufacturing and R&amp;D.</td>
</tr>
<tr>
<td>Medium</td>
<td>Equity alliances</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>Acquisitions</td>
<td></td>
</tr>
<tr>
<td><strong>4. Degree of Market Uncertainty</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Nonequity alliances</td>
<td>Medium/High market uncertainty: Question about the future format between HD-DVD and Blu-ray, and technological uncertainties related to PV cell compatible tech. resources</td>
</tr>
<tr>
<td>Low/Medium</td>
<td>Acquisitions</td>
<td></td>
</tr>
<tr>
<td>High (Medium/High in this case)</td>
<td>Equity alliances</td>
<td></td>
</tr>
<tr>
<td><strong>5. Level of Competition (degree of competition for resources)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Nonequity alliances</td>
<td>Medium to high level of competition: &quot;only company outside Japan shipping of Blu-ray discs&quot; and &quot;counted global OEMs and media brand houses among its customers&quot;</td>
</tr>
<tr>
<td>Medium</td>
<td>Equity alliances</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>Acquisitions</td>
<td></td>
</tr>
</tbody>
</table>