Evaluating development and community benefits of shopping malls

A case study using input/output analysis

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Abstract

Purpose – The purpose of this paper is to focus on the real estate development and community interaction aspects of US shopping malls. The existing research on shopping mall development and redevelopment can more comprehensively address the importance of malls to the communities in which they are located. Existing shopping mall research focuses on lease valuation, tenant location, retail agglomeration economies, retail demand externalities and intangible asset value. Largely, neglected areas of research are the community and economic contributions of shopping malls. These are critical issues given the age of shopping malls worldwide, the need for adjacent area redevelopment and requirement of large public subsidies for infrastructure construction.

Design/methodology/approach – This paper investigates the critical role of shopping malls as town centres and catalysts for area development and redevelopment. A review of the existing research on shopping malls and retail economic contributions to communities is addressed along with how mall redevelopment can be a catalyst for the revitalization of urban core and suburban areas. Methodology on the measurement of shopping centre economic and employment impacts using input/output (IO) modelling is reviewed and analysed.

Findings – IO modelling is an effective tool to evaluate publically supported infrastructure to accompany shopping mall and retail redevelopment. As an example of an IO analysis of construction and mall operations economic impacts, the paper presents a case study of the proposed $2 billion Mall of America (Bloomington, Minnesota) expansion employing IO modelling.

Originality/value – The paper demonstrates the community benefits and economic justification for public support for mall revitalization and provides a reliable analytical tool for quantifying the benefits of mall redevelopment to the community.

Keywords United States of America, Shopping malls, Community benefits, Impact analysis, Input/output, Retail, Town centres

Paper type Research paper

I. Introduction

The motivation for this paper is largely a result of an investigation of the anticipated community and economic impacts resulting from the expansion of the Mall of America (MOA) in Bloomington, Minnesota. The paper's primary focus is on the real estate development and community interaction aspects of US shopping malls. The economic analysis for the construction of the expansion of the MOA (5.6 million square feet/$2 billion) and initial operations impacts was conducted using an input/output (IO) (Minnesota IMPLAN Group, 2007) model. The process of studying the role of shopping malls and shopping mall economic impacts as well as the analysis of the proposed and MOA expansion project framed the development of the need for expanded research on the relationship between shopping malls and communities. This investigation has broader applications regarding the community and

economic relationships between malls and communities. DeLisle (2005) noted the debates on growth management and urban sprawl and the critical importance that the real estate academic community has in developing the fundamental analytical tools to educate the investment community, developers, planners, regulators, interest groups, politicians and the public about the underlying "value proposition" that the retail industry provides. This paper's intention is to contribute to that toolbox.

In 1947, the Urban Land Institute provided the initial definition of a shopping centre as a group of architecturally unified establishments that are planned, owned and managed as an operating unit (Peiser and Frej, 2003). The types of shopping centres include convenience, neighbourhood, community, regional, superregional, fashion/specialty, power, theme/festival and outlet – each type having a distinct size and market classification. Like all forms of real estate, shopping centres have evolved to meet market and community expectations.

II. Shopping malls and communities
Shopping centres and malls have made a substantial impact on both consumers and communities. In the early 1970s, a *US News and World Report Poll* found that adult Americans spent more time in shopping malls than anywhere else except for home and work. In 2003, the United States Census Bureau estimated that there were slightly over 47,000 shopping centres in the USA. Underhill (2004) estimated that 1,175 were large regional enclosed malls. Sussman (1983) pointed out that from the 1950s to 1982 shopping centre and mall sales went from zero to over 55 per cent of non-automotive retail sales in the USA. By the end of the twentieth century (Jackson, 1996), the shopping mall had become a ubiquitous global phenomenon.

Roulac (1994) noted two important factors concerning retail real estate: first that retail real estate is subject to ongoing change (from a confluence of economic forces, demographic trends, shifting consumer preferences, technological advances and aggressive retailer strategies) and second, that the role of place influences the nature of retail economic activity. The adaptability of shopping malls to meet current community influences, preferences and trends along with where a shopping mall is located, defines a mall's community, social and economic impacts. Similarly, structural trends (Carn *et al.*, 1995) also affect shopping malls – reflecting changes in retail forms, excess mall space, consumer demographics and behaviour.

How shopping malls are embraced by and become part of a community varies? One shopping mall, Cherry Hill in Delaware Township, New Jersey, a suburb of Philadelphia, became a community focal point. Cherry Hill Mall was so important to the community's identity and (Miles *et al.*, 2007) of the suburban township's economic and cultural life, that the residents voted to change the name of the community to Cherry Hill.

James (2006) cited the increasing expansion and renovation of existing centres and the decreased interest in the development community to build new malls. The reason for redevelopment and declining construction of new malls is that consumers are, for the most part, adequately served by existing malls. For communities, other benefits from upgrading and/or expanding a shopping mall include increased employment, economic multipliers created by mall sales, blight removal, community stabilization, benefits of construction-related expenditures and increased tax revenues.

Individual mall square footage, the number of stores and retail composition of a mall reflects a distinct relationship responsive to the community and trade area a mall serves.

Carter (2009) found that studies of shopping centres in the finance and real estate literature have, since 2000, "tailed off".

In many communities, the shopping mall has been embraced and functions as either a centre of retail commerce, centre of the community (like a downtown central business district) or both. In providing these services, malls contribute to the economic vitality of a community and region through both operations and improvement expenditures. The shopping mall interfaces with other community economic, social, cultural and tourism activities. Southworth (2005) noted the changing role of public spaces in malls (farmers' markets, concerts, art shows) and the need for urban designers and architects to make more workable public environments. Similarly, Jewell (2001) in his paper, the Fall and Rise of the British Mall called for more experimentation in mall design beyond the "present typological manifestation that the mall implements to ensure the maintenance of the experiential values that are so key to its success". Noting that the infancy of the shopping mall is over and that there is an opportunity to create new forms of social interaction and engagement, Jewell concludes that by:

> […] experimenting with the typological straightjacket, we can establish a more productive relationship between the sprawling and independent infrastructure that has come to characterize the "placelessness" of the suburban environment.

From a real estate investment perspective, managing the shopping mall to optimize the mall's contribution to community benefits creates and sustains property value, lease rates, marketing and leasing activities, regulatory relationships, public subsidies for mall revitalization and support for transportation linkages serving the mall. The health and vitality of shopping centres has critical value to taxing jurisdictions for property and sales tax revenue, community services, area stability, revitalization and economic development. Indeed, public development officials (Musil, 2001) on a national level uniformly identified retail as the most desirable form of development for their communities. This is surprising because the economic multipliers derived from retail development are lower than that of industrial and service industries.

Shopping centre and related retail research (Eppli and Benjamin, 1994) has identified consumer shopping patterns and retailer behaviour in mass form (agglomerated) settings with the chief area of interest to researchers being the valuation of current and anticipated leases. Eppli and Benjamin identified the research literature on shopping centre theory to include: central place theory (single and multipurpose shopping); retail agglomeration economies (comparison shopping and planned shopping centres); retail demand externalities (anchor tenant externalities) and retail lease valuation (lease valuation and intangible asset value). Recognition of community and economic (multiplier) contributions of shopping malls warrants further research and recognition as a distinct shopping mall research typology. The community and economic linkages classification of shopping centre research is comprised of the town centre/community foci, mall economic and employment impacts and mall tourism and special events impacts. Warnaby and Medway (2004) noted in their paper, the role of place marketing as a competitive response by town centres to out-of-town retail developments, that the role of retailing in the marketing of towns and cities has been largely neglected or perceived as a secondary or supportive activity. Citing research from the British Council of Shopping Centres on the growing importance of retailing to urban regeneration Warnaby and Medway stated that: "the promotion of towns and cities as retail

destinations to actual and potential shoppers is a subject neglected by both academics and place marketing practitioners".

III. The shopping mall as town centre

The development of shopping centres is a suburban phenomenon brought about by suburban population growth between 1960 and 1990. The population movement from the cities was aided by road and in particular, freeway construction. Additionally, as noted by Moretti and Fischler (2001), the evolution of the shopping centre into a larger more diverse and public place is linked to the densification of the surrounding community. At first, the suburbs were bedroom communities that, over time, have become more dense and to varying degrees partially self-sufficient entities. This autonomy is accompanied by places of employment, schools and colleges, entertainment venues and commercial development. For larger population concentrations, this has resulted in the formation of polynucleated metropolitan areas – "technoburbs" (Fishman, 1987) and "edge cities" (Garreau, 1991).

Swartz (1979) noted that support for the development of shopping malls to provide focus and identity to otherwise unstructured sprawl, came from planning departments, public officials, developers and investors. This was a strong combination of forces capable of changing zoning and directing road construction. Undoubtedly, the use of shopping malls as town centres (Lowe, 2000) will pose challenges to the planning community and the allocation of future public infrastructure investment. Accompanying this development planning and the emergence of the shopping mall as the new village centre (Roulac, 1996), malls also provided a central meeting place and in more recent years have added a range of additional services including restaurants, theatres, libraries, municipal services, daycare centres and other uses. The diversification of the shopping mall tenant base not only provided needed community services, but generated additional mall traffic which supported existing retail activity.

The identity of the shopping mall as a public or central meeting place for a community to interact on social, economic or political issues is, however, limited (Staeheli and Mitchell, 2006) in that community access to the shopping mall has, in the mind of mall owners and managers, to be consistent with the mall's primary function: consumption. Free speech rights under the US Constitution and Supreme Court decisions have removed restrictions on the use of the shopping malls' primary function of consumption only status. The topic of the implied right of free speech in shopping malls is well beyond the scope of this paper, but a discussion of free speech rights in shopping malls is important to confirm that malls, as public spaces, must allow political activities such as the right to petition. For example, in the Pruneyard Shopping Centre versus Robins, 447 US 74, the United States Supreme Court (1980) affirmed the right of high school students to obtain signatures on a petition in the Pruneyard Shopping Centre in Campbell, California. This court decision affirmed the right of individuals to conduct political activities in shopping centres under reasonable regulations of the shopping centre.

IV. The economic contribution of shopping malls

The relationship of shopping malls to local and regional economies can be investigated at many levels including construction impacts, employment, tourism, private/public partnerships, urban revitalization and catalysts for area infrastructure and

economic growth. However, often the studies are comprised of data rich content but little rigorous and meaningful analysis (European Shopping Centre Trust and International Council of Shopping Centres, 2008) of the economic and employment contributions made by shopping centres.

Retail establishments are sometimes considered (Thilmany, 2005) to be non-basic industries that do not generate new income. The identification of retail as only a consumer non-basic industry is constrained and inaccurate because it fails to acknowledge that retail property economically benefits a community (Brammer and Tomasik, 1995) by preventing retail expenditure linkages to other regions. Individual retail establishments and shopping malls play a significant role (Gibson *et al.*, 2003) in creating net inflows of basic income from visitors not residing in the primary region. New retail business formation can improve the perceived quality of life within the primary region and by doing so attract higher income industries. Similarly, as noted by Gibson *et al.* (2003), in today's knowledge-based economy, an increased focus is on quality of life issues and retail is having a more pronounced role in economic development. In Western countries, job growth has shifted from manufacturing to knowledge-based activities and economic development professionals, to attract and retain knowledge-based industries and workers, must recognize the importance of easy access to high quality goods and services as an essential part of the community amenity/quality of life equation.

Dixon (2005) noted the importance of quantifying the economic role of retailing in the UK urban regeneration. Dixon documented that the UK's retail sector's economic and employment contributions are significantly more than simply a link between production and consumption. Similarly, Bennison *et al.* (2010) and Howard (2007) cited the economic importance of shopping to community activities such as events, longer tourist visits and noted the importance of synthesis between retail and place management.

In an urban development context, communities can use retail development (Steinman, 2009; Lowe, 2005; James, 2006) to foster community development, increase the tax base, increase employment and stimulate development and rehabilitation in adjacent areas. Phillips (2000) noted that retail development is often overlooked as a vital component of local economies and that retail development is often criticised as having little worth in terms of community benefits. Some approaches to the measurement of malls (Institute for Local Self-reliance, 2008) use methods that consider factors such as forecasting sales, environmental impacts, retail mix, determination of market area, forecasting wages and employment, tax revenue and infrastructure costs. The economic impacts resulting from multiplier effects are, however, often overlooked. Clearly, a comprehensive impact study measuring shopping mall development or operations must include all relevant economic factors in order to have value for stakeholders and decision makers. An economic analysis measure of shopping malls must include employment and economic multipliers generated by a shopping mall and benefiting the local or regional community. An accurate measure of the economic impact of a shopping mall on a local or regional economy can be found by using a regional IO model. Essentially, an IO model shows how purchases of a business in one industry sector impact the economic activity in other industries. An IO model has the ability to forecast employment and economic impacts in a geographic context. As noted by Bernat (2005), IO models are ideally suited to tracing the cycle of spending and re-spending that is set in motion by the expenditures made to operate and maintain a shopping centre.

The application of IO modelling was developed by Wassily Leontief. Leontief won the 1973 Nobel prize in economics because his IO model was able to express the economic relationship between industry sectors in a geographical context. The IO model is based on the theory that when new money enters a community through investment, income, or revenues, some of the money is re-spent creating additional economic and employment impacts. The IO model (Minnesota IMPLAN Group, 2007) estimates impacts based on specific data for over 500 industry sectors. The degree of industry economic interrelationships and transactions among the industry sectors are reported in IO tables and economic multipliers. The multipliers quantify relationships, patterns of purchasing, the distribution of jobs and wages by industry. An IO model reveals (Davis, 1990) as no other approach does, the ways in which the various sectors of a region's economy are meshed together and are linked to sources of economic stimuli. IO models are most commonly used to trace individual changes in final demand through the economy over short periods of time. In this function (Schaffer, 1999), they are called impact models or multiplier models – in essence an IO model is based on the theory that when new money enters a community through income, revenues, or investment, a portion of that money is re-spent one or more times.

There are a number of providers of regional IO models and economic and employment multipliers. The Bureau of Economic Analysis developed the Regional Input/output Modelling System (RIMS II) and other widely accepted IO models include Impact Planning and Analysis (IMPLAN) model developed by the Minnesota IMPLAN Group and REMI developed by Regional Economic Models (Rickman and Schwer, 1995).

The IMPLAN data base, used in the case study of this paper on the MOA expansion project, is built around input and output data by industry sector within a local or regional economy. A researcher can define the geographic study area such as a metropolitan statistical area, county, group of counties or state. The industry economic data comes from a variety of government agencies and is collected for 528 distinct producing sectors of the economy. The producing sectors are identified by the North American Industry Classification System (NAICS) (United States Census, 2007). By using national and county level data, the IMPLAN model constructs IO tables and multipliers for transactions in the study area. For a discussion of the matrix algebra underpinning IO modelling (Schaffer, 1999).

The basic IO model equation system, Schaffer (1999) can be expressed as:

$$\sum_{j=1}^{n} a_{ij}q_i + \sum_{f=1}^{t} y_{if} + e_i = x_i \quad (i = 1, \ldots, n)$$

The a_{ij} represents purchases from regional industry i by industry j (or x_{ij}) as a proportion of the output of industry j (or x_j), y_{if} is the local final demand for the products of industry i by final-demand sector f, and e_i is the exports by industry i.

The system can also be outlined in terms of supply, describing the production technology of a region:

$$\sum_{i=1}^{n} a_{ij}q_i + \sum_{f=1}^{t} v_{fj} + \sum_{i=1}^{n} m_{ij}q_i = q_t \quad (i = 1, \ldots, n)$$

Here, v_{fj} is the value added by final payments sector f to the product of industry i, and m_{ij} is the imports of the products of industry i by industry expressed as a proportion of the output of industry j. (Note that we have included t local final-payment sectors to match the t local final demand sectors. This is for simplicity, since we normally have more final-demand sectors than final payment sectors).

For a producing industry, three components of economic change are estimated within a region or local study area: direct effects (representing the initial change); indirect effects (showing inter-industry transactions as supplying sectors respond to demand created by the industries producing the direct effect) and induced effects (reflecting changes in local spending resulting from changes in personal income attributable to the direct and indirect industry sectors).

Total effects multipliers are interpreted (Mulkey and Hodges, 2003) in three ways:

(1) Output multipliers relate the changes in sales to final demand by one industry to total changes in output (gross sales) by all industries within the local area. An industry output multiplier of 1.65 would indicate that a change in sales of final demand of $1.00 by the direct industry would result in a total change in local output of $1.65.

(2) Income and employment multipliers relate the change in direct income to changes in total income within the local economy. For example, an income multiplier for a direct industry change of $1.75 indicates that a $1.00 change in income in the direct industry will produce a total income change if $1.75 in the local economy. Similarly, an employment multiplier of 1.75 indicates that the creation of 1.0 new direct job will result in a total of 1.75 jobs in the local economy.

(3) Value-added multipliers are interpreted the same as income and employment multipliers. They relate changes in value added in the industry experiencing the direct effect to total changes in value added to the local economy.

Finn and Erdem (1995) in their paper, the economic impact of a mega-multi-mall: estimation issues in the case of West Edmonton Mall noted that economic impact analysis requires two components: an estimate of direct impacts and a model of the regional economy that will produce estimates of indirect effects. Finn and Erdem also pointed out that an IO model of a regional economy provides the best multipliers because the model represents transactions between producers as well as transactions between producers and consumers and an IO model provides considerably more detail regarding the economy than alternative models.

V. Mall of America phase II expansion: input/output case study

The MOA is located in Bloomington, Minnesota a Twin Cities suburb. The first phase of the MOA was completed in 1992 and has a gross area of 4.2 million square feet containing 2.5 million square feet of retail space with 20,000 on-site parking places (www.mallofamerica.com, 2010). The MOA was built on the site of metropolitan stadium former home of the Minnesota Twins baseball team and the Phase II expansion is planned for an adjacent site that was the former location of the metropolitan sports facility. Prior to the construction of the MOA, both sites served, as long-term parking for the adjacent Minneapolis/St Paul International Airport. The city of Bloomington has used various forms of public financing to help build the MOA. Clearly, the development of the MOA revitalised the area and redeveloped a very large vacant site. The MOA is

host to many community events throughout the year and attracts over 40 million visitors annually.

The MOA is owned and managed by Triple Five Corporation (2010), owned by Canada's Ghermezian family, who are also owners of the West Edmonton Mall. The MOA currently employs 11,000 people (13,000 during the summer months) on a full and part-time basis and MOA officials estimate the number of employees will grow to over 20,000 when the proposed expansion (Phase II) is completed. MOA attractions include: Nickelodeon Universe, an indoor theme park in the centre of the mall with roller coasters and other rides; an underwater aquarium, flight simulations and a 14-screen movie theatre. The MOA has 520 shops including Bloomingdale's, Macy's, Nordstrom and Sears as anchor tenants.

The primary trade area of the MOA is within a 150 mile radius. Approximately, 32 per cent of mall shoppers live beyond the 150 mile radius. Annually, over 12,000 tourist groups arrive at the MOA on bus tours and over 1.5 million visitors to the MOA are from foreign countries. MOA research (Simon Consumer Research Corporation/SPG Research, 2005) has found that shoppers beyond the 150 mile radius spend 43 per cent more than resident shoppers within the 150 radius area. Furthermore, their research has found that tourist parties spend an average of $530 outside of the MOA during their trip to the Twin Cities.

The MOA expansion is planned for the 42 acre site immediately to the north of the existing mall. The estimated project cost is $2.1 billion and it is estimated that $927 million in annual sales and revenues will be generated by the expansion when stabilised. Phase II will consist of four levels and will connect with Phase I of the MOA at each of the four levels. Development approvals are in place and allow for building a maximum of 5.6 million square feet of mixed use space. Phase II plans include the development of retail space, hotels, high end fashion shops, a dinner theatre, a health spa, a water park, a museum, an ice rink and restaurants. Additionally, Phase II development plans call for energy saving green design with an energy co-generation plant on the site. The construction of Phase II is projected to increase the number of businesses in the MOA by 270 to a total of just over 800 for the entire mall. Additional site improvements accompanying Phase II include an 8,000 car on-site parking ramp.

VI. MOA phase II construction impacts

The construction of Phase II is estimated to take four years (2009-2012) and additional construction of tenant improvements would continue as the project moves toward stabilization. The construction cost estimates used in the IO modelling were based on data supplied by the developer and general contractor. The general contractor supplied annual cost estimates for materials and labour. The tenant improvement costs of $63.8 million and the future development of an office building ($75 million) planned for after the fourth year of construction, were not included in the IO analysis. The construction schedule was broken down by quarters for each of the four years and costs and impacts were reported in 2007$. Pre-development costs of $11 million were included in the impacts for the first year. Of the total construction costs, approximately 55 per cent were dedicated to building materials and 45 per cent for labour. Table I summarizes the annual construction budgets for Phase II.

The IMPLAN (Minnesota IMPLAN Group, 2007) industry sector definitions for Phase II construction included businesses primarily responsible for the construction

(including new work, additions, alterations, maintenance and repairs) of commercial and institutional buildings and related structures. Included in this industry sector are commercial and institutional building general contractors, commercial and institutional building operative builders, commercial and institutional building design-build firms and commercial and institutional building project construction management firms.

The direct expenditures for labour and materials for the four years of construction of Phase II, resulted in the following direct, indirect, induced impacts for the state of Minnesota identified in Table II. Of the approximately $2 billion in total planned expenditures, $138.8 million for the project office tower and tenant improvements was not considered as direct expenditures. Note that approximately $115 million was lost from the total construction expenditure to direct impacts in the state due to leakages (construction-related expenditures made outside of Minnesota).

With IO modelling, direct, indirect and induced impacts can be identified by geographic region. Because the MOA is located in the Twin Cities, which is home to over half of the state's population, a comparison of statewide and a 13 county metropolitan region was also made and produced the results in Table III.

The IO modelling also enabled the forecasting of direct, indirect and induced employment resulting from the construction of Phase II. The employment impacts

Year	Materials expenditures ($)	Labour expenditures ($)	Total ($)
2009	124,410,000	101,790,000	225,200,000
2010	308,275,000	252,225,000	560,500,000
2011	304,700,000	249,300,000	554,000,000
2012	332,585,000	272,115,000	604,700,000
2013	76,340,000	62,460,000	138,800,000
Total	1,146,310,000	937,890,000	2,083,200,000

Table I.
Total construction materials and employment expenditures by year

Year	Direct impact ($)	Indirect impact ($)	Induced impact ($)	Total impact ($)
2009	218,654,876	73,593,283	105,720,222	397,968,381
2010	532,964,724	182,653,048	261,272,485	976,890,251
2011	519,469,888	190,865,595	268,714,610	979,050,090
2012	557,960,576	205,007,983	288,625,297	1,051,593,854
Total	1,829,050,064	652,119,909	924,332,614	3,405,502,576

Table II.
Phase II construction impacts statewide 2009-2012 (2007$)

Year	13 county Metropolitan area ($)	Statewide ($)
2009	387,039,311	397,968,381
2010	949,899,758	976,890,251
2011	951,364,826	979,050,090
2012	1,021,857,218	1,051,593,854
Total	3,310,161,113	3,405,502,576

Table III.
Total direct, indirect and induced construction impacts by geographic distribution (2007$)

(IMPLAN does not differentiate between full- and part-time jobs) resulting from construction are identified in Table IV on a statewide basis and in Table V, which shows a comparison between the 13 county Twin Cities Metropolitan area and the state as a total.

VII. MOA phase II operations impacts

Phase II is designed to accommodate 273 tenants. Tenant square footage ranges (Mall of America, 2008) from a low of 610 square feet for a specialty food store to a high of over 550,000 square feet for a water park. Of the project's 5.6 million gross square feet, 3.5 million square feet will be leased space. Table VI provides a breakdown of the tenant mix by square footage.

Forecasting of merchant and business revenues for Phase II was based on the per square foot sales levels of similar businesses operating in the existing mall. Business and retail categories were aligned to the NAICS. If a proposed new business for Phase II did not match an existing MOA NAICS category, the business or merchant's pro forma projections were used to forecast sales for the first year of operation. The ability to obtain pro forma projections was aided by MOA pre-leasing activities. There is always a challenge in forecasting mall operations sales levels. Pre-leasing activity aided the projections as did the mall's leasing staff in estimating the smaller tenant mix by square footage. This enabled the researcher, using the NAICS code, to categorize projected tenants and to extrapolate employment and sales levels on a per square foot basis.

Year	Direct employment	Indirect employment	Induced employment	Total employment
2009	1,847	544	861	3,253
2010	4,699	1,382	2,233	8,313
2011	4,926	1,450	2,296	8,672
2012	5,291	1,558	2,466	9,315

Table IV.
Construction and construction-related jobs created by year for the state of Minnesota

Year	13 county Metropolitan area	Statewide
2009	3,085	3,253
2010	7,655	8,313
2011	7,990	8,672
2012	8,582	9,315

Table V.
Annual construction and construction-related jobs

Tenant-leased space (square feet)	Number of tenants
600 to 1,000	45
1,001 to 5,000	151
5,001 to 10,000	38
10,001 to 30,000	26
30,001 or more	13
Total	273

Table VI.
Tenant mix by square feet

Table VII presents a breakdown of existing tenants in Phase I and projected new
tenants in Phase II. The current mall employs approximately 11,000 full- and part-time
workers (13,000 during the Summer months) and with the expansion of employment
created by Phase II, an additional 7,200 jobs are estimated to be created. In addition to
the direct employment of 7,200, the IO modelling estimated that an additional 546 jobs
will be created outside of the MOA.

For an economic impact to be realised in the local economy, the economic stimulus
must begin with expenditures from outside of the primary region or study area used in
an IO model. Accordingly, in the case of the MOA and the proposed Phase II
expansion, two factors were considered. First, what is the estimated MOA shopping
expenditure of visitors who reside outside of the State of Minnesota and how much is
spent by these visitors in other Twin Cities activities such as food and lodging.

The City of Bloomington, Minnesota Assessor (2008) reported that the MOA clearly
contributed to the city's construction of 1831 hotel rooms valued at $230 million. Mall
research (Simon Consumer Research Corporation/SPG Research, 2005) found that
32 per cent of MOA shoppers resided outside of the 150 mile radius and that tourist
parties spend an average of $530 outside of the MOA during their trip to the Twin
Cities. They also found that out of area shoppers had the following characteristics:

- The amount of money that non-resident shoppers spend outside of the mall
  increased significantly (22 per cent) between 2002 and 2005.

- Non-resident shoppers spend 43 per cent more than resident shoppers within the
  150 mile radius of the mall.

- Residents from other states comprise 30.6 per cent of MOA shoppers.

- In 2005, the average income of non-resident shoppers was 49 per cent higher than
  the average income of resident shoppers. Note: the variance in income to a large
  extent is a result of age. The average age of non-resident shoppers is 41.5 while
  the average age of resident shoppers is 30.7.

Job categories	Phase I		Phase II	
	Number of jobs	Per cent of total	Number of jobs	Per cent of total
Mall management and operations	415	4	105	1.5
Amusement and attractions	775-800[a]	7	120	1.5
Retail: department stores and small shop retailers	9,330-1,300[a]	84	4,635	65
Restaurants and food service	480-520[a]	4	525	7
Hotel (lodging)	0	0	200	3
Office building	0	0	1,465	20
Performing arts centre	0	0	35	0.5
Museum	0	0	25	0.5
On-going construction	150	1	100	1
Total	11,150 to 13,000	100	7,200	100

Note: [a]Overall employment grows to an estimated 13,000 during seasonally high periods

- Of the non-resident shoppers surveyed, 42 per cent stated that they were in the Twin Cities primarily due to the MOA.
- Approximately, 4 per cent (1.6 million) of visitors to the mall are from foreign countries. An attraction for foreign visitors shopping in the mall is that the state of Minnesota does not tax clothing.

The above findings of MOA research dovetails with other Minnesota tourist and/or traveller surveys. Scenic touring is the highest rated activity from travellers visiting Minnesota. Statewide, the estimated traveller expenditures total $11.8 billion, with about 49 per cent or $5.8 billion spent in the Twin Cities metropolitan area (Davidson-Peterson Associates, 2006).

Assuming that MOA Phase II initial occupancy was 70 per cent (30 per cent vacant or unfinished) the IO model estimated that non-Minnesota residents would generate $172 million in total economic impacts resulting from MOA Phase II sales and $131 million in tourism impacts for activities outside of the MOA. Table VIII summarizes the Phase II impacts at a 70 per cent occupancy level.

VIII. Summary

A discussion of the development, redevelopment and economic contribution of shopping malls to communities is important to several stakeholders. Citizens, public and elected officials and indeed real estate developers, shopping mall owners and managers have a great interest in quantifying the value that shopping malls have for a community. Between 1960 and 1990, public attitudes toward growth and support for publicly funded infrastructure benefiting shopping malls was strong. These past public pro-growth attitudes toward development have, however, changed and any private business, like a shopping mall, that seeks or benefits from publicly funded improvements must be able to justify the improvement in relation to the value created for public benefit. As shopping malls age, additional capital improvements to the shopping mall, site parking and relevant public infrastructure will have to be funded. In cases, where the argument is made that public financial support is necessary for improvements directly benefiting a shopping mall with subsidies or tax increment financing, the quantification of public benefits is needed.

The use of IO modelling, as demonstrated in this paper is an accurate forecasting tool to show stakeholders the economic and employment benefits associated with shopping malls. Accurate construction and mall operations data are critical to the IO measurement of the externalities created by a shopping mall. An IO model is only as good as the data that it has available. Consequently, further research is needed regarding shopping mall construction and operations cost data, shopping malls and their relationship to tourism and mall intercept survey techniques to identify shopper demographics and non-resident expenditures made in both the mall and community.

	Non-Minnesota resident Contribution to phase II economic impacts ($)	Non-Minnesota resident Contribution to tourism impacts ($)	Non-Minnesota annual Total economic impacts contribution ($)
Area			
Statewide	172,125,262	131,370,180	303,432,443

Table VIII.
Non-Minnesota resident economic contribution from phase II operations at 70 per cent occupancy

The real estate academic community needs refine existing tools and investigate and develop more quantifiable methods for measuring the economic and community impacts of shopping malls.

As our shopping malls evolve to meet future retailing and consumer needs, the investigation of economic and social synthesis of malls and the community will deserve greater consideration. Community economic and social benefits associated with malls, such as employment, income multipliers, construction, tourism, special events and allied real estate development, must be understood. If these contributions are not understood, the basis for public support of mall regeneration, development of public infrastructure and related development will be less efficient and lack synergy.

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